COMMERCIAL & INDUSTRIAL CONSULTANTS LTD
Licensed Real Estate Agent (REAA 2008)

14 February 2023

Submission to commissioners.
HCC. Plan change 9

The well-being of society is directly related to affordable housing.

Plan Change 9 and 12 are required for HCC to comply with their legal requirement, with regards to NPS -UD and associated legislation.

Since 2018, I have made numerous submitted to HCC. The Compact city model (Smart growth) that HCC has adopted, has made housing unaffordable.

A managed Growth approach just does not work.

HCC has a legal requirement under LGA 2002, to consider "wellbeing".

HCC does not have an affordable housing policy. Therefore housing, is not considered "wellbeing", that requires HCC to responsible to.

It is only the NPS-UD legislation that has required HCC to address affordability.

I will prove evidence that if HCC is allowed to proceed with Plan Change 9, in its current form, housing will be **more unaffordable. I believe therefore Plan Change 9 is unlawful.**

I am a real estate consultant, with over 50 years' experience in selling, developing and advising on real estate matters. I will not benefit personally from my recommendations.

I have a good understanding of both planning and economics.

It is **economics** that determines both how, and what developments take place, **not planning.**

To understand how Plan Change 9, will not assist affordability (and does not comply with the law) it is necessary to go back to 2007/8 when HCC was preparing the District Plan.

HCC has had a policy, of "restricting land" supply. That being "infrastructure ready" land.

This is due to a policy decision of both planners, and financially constraints.

Planning.

PO Box 22, Hamilton, New Zealand. Telephone: (07) 849 7800 Mobile 021972500
E-mail: colin@cicl.co.nz

"Limit new subdivision approvals with the objective of pushing up land prices and giving developers and section buyers an economic incentive to drift towards more intensive subdivisions/ housing." **Evidence A. Strategic Risk Analysis 25.8.2008**

The **Intensification Study, Infill Housing Assessment, 2007**, the **Hamilton Urban Growth Strategy, Sept 2008** and **Harrison Grierson report, August 2010** advised that **theoretically** HCC has 29 years supply of land within the existing city boundaries. This **could** result in **108,000 dwellings**. Market Economics (section 32) have now advised that **potentially** there is capacity for 112,000 dwellings.

However, this assumption is based on the maximum **permitted by "zoning"** if most existing buildings are **demolished,** to allow **greater density**. These reports also stated that Infrastructure would need to be upgraded, to allow intensification.

No consideration was taken of cost, and whether it would make housing less or more affordable.

HCC has now acknowledge, under Plan Change 12, that for intensification to occur, then infrastructure needs to be upgraded.

HCC Economist (Development Economics report 2011. Housing affordability & Demand in Hamilton City.)

It states that "policies that facilitate least expensive housings would significantly improve the social and economic well-being of the population. Achieving more affordable housing is simply a matter of increasing the supply of development land."

Evidence B. Report attached.

Economic 101 states: if you undersupply the market, prices will always rise.

Without prices (always) increasing, HCC planning model doesn't work.

The NPS- UDC requires a zero growth in prices.

Evidence C. Urban Economics Housing Development Capacity Assessment 2017, with attached 12/11/2018 showing how HCC model works.

The Treasury and Reserve Bank report (Sept 2022) has identified that interest rates and zoning are the primary reason for unaffordability housing. Zoning in that context also refers to planning.

Paul Krugman winner of the Nobel prize in Economics 2008 states; 8th August 2008.

"in the United States it's really two countries "flat land" and "zoned land".
"In flatland, which occupies the middle of the country it's easy to build houses. When demand for houses rises, flat land metropolitan areas just sprawl out more. As a result, house

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E-mail: colin@cicl.co.nz

prices are basically determined by the cost of construction. In flatland a housing bubble doesn't even get started."

"But on "zoned" land which lies along the coast, the combination of high population density and land restrictions-hence "zoned" makes it hard to build new houses. So, when people become willing to spend more on houses, say because of a fall in mortgage rates, some houses get built, but the price of existing houses also goes up. And if people think that prices will always continue to rise, they become willing to spend even more, driving prices up still higher and so on. In other words, the" zoned zone" is prone to housing bubbles".

My submission is that HCC Plan Changes 9, "restricts supply." and therefore, does not comply with NPS -UD.

Evidence D. Govt Response to NZ Infrastructure Strategy Sept 2022.

I have previously submitted to the review of the District Plan (2012). Hamilton East should have higher density. It is ideal for redevelopment, being close to the CBD, University and Ruakura. The infrastructure will possible need upgrading, in the forceable future. Plan Change 12 foresees both Hamilton North (Ulster Street area) and Enderley, being the preferred option. Parts of Hamilton North (Ulster St) already has high land costs, with motels and apartments, so affordable housing is not an option.

HCC section 32 report for Hamilton East states that about 56% of houses in this area are owned by investors. This would provide the incentive to amalgamate title, to increase density.

Although not covered in Plan Change 9, I would recommend that HCC should lobby the Govt to modify the " Brightline" test to assist with this process.

Financial

HCC Development Contributions. HCC Development Contribution policy never provides the income anticipated to provide the necessary funds for infrastructure. This has resulted in HCC incurring more debt.

Evidence E 1 . HCC OIA Income and capital expenditure. (2 separate pages)
Evidence E 2 Urban Economics Housing Construction Forecast and Revenue 9/2019

HCC has failed to comply with NPS – UDC and NPS – UD.

Evidence F. See formal complaint against Future Proof 21st Sept 2021 and Future Proof reply.

I was commissioned by MBIE, in 2019, to identify what "restrictive covenants" had occurred throughout Hamilton. My conclusion was approximately 25%. This would prohibit further development, making 108,000 dwellings impossible. This % was confirmed by Urban Economics (Economist) in April 2020. HCC (economist) Market Economics has now confirmed these percentages in their section 32.

Evidence G Letter to Mayor Southgate 8th June 2022 from Thomas Gibbons. Barrister. This explains where HCC is failing to comply with NPS -UD. As such HCC is noncomplying.

PO Box 22, Hamilton, New Zealand. Telephone: (07) 849 7800 Mobile 021972500
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Further Evidence is required.

HCC Section 32 is deficient in multi areas.

Building Costs. HCC section 32 report is insufficient to understand completely the cost of building houses and especially high rise apartments.

Evidence H Urban Economics April 2021. Development Contribution National Benchmark & Impact on Development Feasibility.

This report not only covers DC costs, but importantly the cost of building a house and what is economical feasible. HCC Section 32 provides no such information.

Under the Section 32, HCC has provided "no detailed" economic evidence to support their "theory" of housing costs. The only reference I could find to "building costs" is in the development contribution section. This refers to houses costing $3000m2.

In the 2021, ME indicating a building cost range of $1600m2 to $2400m2. No evidence has been provided for the cost of duplex or high-rise apartments.

Under an OIA request, HCC have advised that Market Economics model is "proprietary" and unavailable for review.

From my experience it is unlikely that the anticipated "supply" of high-rise apartment will ever happen in Hamilton, to the extent that planners anticipate. Ie 3200 to 12,000 within the next 6 – 10 years. The cost of high rise is currently in excess of $5000m2 with some development going up to $10,000 m2.

This will have a significant "effect" on the anticipated supply of housing, that HCC is relying on, to comply with NPS -UD and associated legislation.

Therefore, I request that the **underlying assumptions** on building costs be fully made available. This is in line with the submission of Kainga Ora.

Housing Choice. In 2018 Future Proof commissioned ME to undertake this research.

Of the 10 choices, 4 were in Auckland and 1 in Dunedin. For the 5 remaining Hamilton choice, all were underpriced by between $50,000 and $150,000 according to a report I commissioned from Telfer Young (registered valuers) .

HCC house choice report was slanter to offer mostly units, inner city dwellings and duplex.

Evidence H. Peer review Urban Economics Housing study. Demand Preference and Supply Study 2020.

An "independent" housing choice survey is required. Possible from Waikato University.

PO Box 22, Hamilton, New Zealand. Telephone: (07) 849 7800 Mobile 021972500
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Section costs. Future Proof commissioned a report from Greenstone Group (2008) on land costs. This report "stated" that sections (in Hamilton) were $150,000 to $165,000. Telfer Young (registered valuers) provided evidence that the true cost was in excess of $300,000 for the same period.

An independent report on both the availability and cost of land is required.

Conclusion.

(1) The only way for housing to be affordable, is for a "ready supply" of "infrastructure ready land" , at competitive prices. This was identified in the council's own economic evidence of 2010. (Development Economics). It is also a legal requirement. The assumptions that up to 70% of dwelling can be accommodated in the existing city is plainly not possible, without significant upgrade of infrastructure, which will take time.
Furthermore, is it what consumer wonts, or afford, or is it what the planners wont.? Consumers don't have to come to Hamilton. If Morrinsville/ Cambridge is a cheaper option, will consumers just travel.?

(2) Smart Growth, or a "managed growth" approach to planning plainly is not working for the majority of the younger population, and is making housing unaffordable.
Refer: American Nightmare, and The Best Laid Plans, by Randal O'Toole

(3) I agree with many of the submission of Kanga Ora. That being a different approaches to address housing "infrastructure" other than using "qualifying matters." which excludes most of Hamilton East.

(4) My recommendation is that Hamilton East becomes a "medium density" housing area immediately, pending further greenfield land becoming available.

(5) Although not covered by plan change 9, it is clear that the Development Contributions policy, currently adopted by HCC is not providing the necessary funding. HCC has recently lost a significant court case brought by Everton Heights Limited. This judicial review was won 100% by Everton. It will have a significant effect on councils finances probably involving up to $6 million in funding shortfall.

(6) HCC has assumed that housing development will take place at both Rotokauri and Peacocks, to meet their legal requirements. HCC have confirmed under OIA that the DC charges were not address in their modelling of section prices. In both area, the new DC charges have increase from $34,000 to $67,000. For one area in Peacocks, that I have investigated, (140 HA) it showed sections would need to sell in excess of $700,000 for the development to be profitable.

(7) More detailed information is required to understand HCC assumptions of

(1) building costs
(2) Housing choice
(3) Section costs
(4) Affordability
(5) The supply of affordable land

PO Box 22, Hamilton, New Zealand. Telephone: (07) 849 7800 Mobile 021972500
E-mail: colin@cicl.co.nz

Without the information listed about, it is not possible to understand fully how HCC can met its legal obligation under Plan Change 9 & 12.

I would like to provide additional information to the Plan Change 12 hearings.

I thank you for your time and trust that the information provided is informative.

Yours Faithfully

Colin Jones
AREINZ

PO Box 22, Hamilton, New Zealand. Telephone: (07) 849 7800 Mobile 021972500
E-mail: colin@cicl.co.nz

PROPERTY RESEARCH

Developer Perceptions

Intensification of Greenfield Residential Subdivisions

REPORT OBJECTIVE

This report was commissioned as input in to the Hamilton Sub-Regional Growth Strategy being undertaken by Hamilton City Council (HCC), Waikato District Council, Waipa District Council and Environment Waikato. The report focuses on developer perceptions for intensification of Greenfield residential subdivisions and needs to be read in conjunction with our reports on Greenfield residential subdivisions, Greenfield industrial subdivisions, and the ***Hamilton Infill & Multi-Unit Housing Markets*** report we prepared for HCC (19 March 2008).

This report investigates the key land economic drivers for Greenfield residential intensification in the subregion, with particular focus on the Hamilton market where the much larger population makes intensification more economically feasible although options for intensification are also considered for the rest of the subregion. It investigates the future market opportunities and constraints for promoting intensification of Greenfield residential subdivisions in the subregion and the key economic and financial pre-requisites to achieve successful intensification in Greenfield residential subdivisions. Issues relevant to residential intensification in existing residential areas are addressed in the ***Hamilton Infill & Multi-Unit Housing Markets*** report we prepared for HCC (19 March 2008).

Much of the information contained in this report was gained by interviewing local, Auckland-based and Tauranga-based developers and relevant property professional, including one Wellington-based developer. The relevant people to interview were identified in preliminary discussions with several local property professionals, based on our knowledge of relevant developers and included some suggestions from Gary Knighton (Team Leader City Strategy, Strategic Group, Hamilton City Council). It was not possible to interview all of the people identified but the vast majority of people identified as being relevant were interviewed, including what we believe to be a representative sample of local and out-of-town developers. Interviewees were asked a standard list of questions we designed to extract the relevant information, while we also offered the people interviewed the opportunity to express opinions about any relevant or related matters. We would like to express our thanks to the people interviewed who were generous with their time and provided many valuable insights.

Rodney Dickens
Managing Director and Chief Research Officer
Strategic Risk Analysis Limited
www.sra.co.nz

 25 June 2008

Options for the Councils to achieve intensification in Greenfield subdivisions

We see the Councils as having several options for achieving more intensive Greenfield residential subdivisions than the conventional subdivisions that deliver around 10 dwellings per ha. These include:

1. Limit new subdivision approvals with the objective of pushing up land prices and giving developers and section buyers an economic incentive to drift towards more intensive subdivisions/housing.
2. Approve new subdivisions subject to the developers achieving specified intensities (e.g. 12, 15 or 18 lots per ha), potentially including different densities in different areas if considered desirable.
3. Only approve new subdivisions if they have designated medium to higher density areas within them that ensure the overall subdivisions achieve the desired density or densities.
4. Work in co-operation with the small number of developers that have an inclination to develop more intensive housing options, and the experience in doing so.
5. Councils buy land prior to rezoning areas residential and only make the land available to developers who have the skills and inclination to develop more intensive subdivisions, potentially working in co-ordination with the developer or possibly even doing the developments themselves.
6. Continue approving subdivisions largely as is the case now but find ways of giving developers incentives to deliver more intensive subdivisions (e.g. subdivision levies and fees per ha not per lot so as it makes more intensive subdivision more economic; allocate a council staff member to co-ordinate with developers who plan to deliver more intensive subdivision so as to make the process smoother, faster and more economic for developers (holding costs can be a major cost for developers, so anything that speeds up a development will make it more attractive to developers)).

Based on our understanding of the economics of new subdivisions (see ***The Greenfield residential subdivision market*** report), our understanding of developers' preferences and what we assess will work in the Sub-Region, our thoughts on these six options are:

1. Section prices especially in Hamilton but also in the Sub-Region are already uncompetitive or unaffordable. If the Councils limit the amount of land they approve for new subdivisions in an attempt to push up land prices and make housing intensification in Greenfield subdivisions more attractive to developers and section buyers they risk stifling economic growth in the Sub-Region. It would make the Sub-Region (or the parts of it that followed this approach) vulnerable to losing population to neighbouring areas (e.g. Morrinsville and any parts of the Sub-Region that didn't adopt the same approach) and/or to neighbouring regions (e.g. Bay of Plenty and South Auckland). We view this option as the least attractive if the Councils want to both increase housing density and help ensure the Sub-Region's economy prospers.
2. We believe the second option offers the potential of achieving the desired level or levels of intensification in Greenfield subdivisions without exacerbating the competitiveness of the Sub-Region. It is likely to mean the Sub-Region attracts developers inclined to more innovative subdivision/housing outcomes and discourages the developers only interested in doing conventional "cheese-cutter" subdivisions.
3. The third option is much like the second but involves being more specific about the nature of housing intensification. While this option may be appropriate in some circumstances if the Councils have good reasons to want a specific form of intensification in certain areas, in our assessment the second option has more merit, especially because it leaves it up to developers to assess what forms of more intensive housing will work in the real world.
4. From what we have seen of this style of approach, and based on what we understand will work in the Sub-Region, we can see circumstances where this approach could work well. It is an approach well worth considering if the Councils decide it is desirable to proceed with a stand-alone or self-sufficient subdivision in the Peacockes growth cell that mitigates the need for a new sewage pipe over the river. It could be an approach that would work well if the Councils decide to rezone residential land on the east of Hamilton, where there are two major land owners interested in doing more inventive housing development that could achieve more intensive housing, better urban design and competitively-priced housing. It could also work in other areas of the Sub-Region. However, we believe a critical part of the economic health of the Sub-Region is having a competitive land/subdivision/section market, so we would see this option as being potentially useful in certain circumstances but not a sole option otherwise it risks undermining competition.

development economics

Housing Affordability & Demand in Hamilton City

CLIENT: HAMILTON CITY COUNCIL
PROJECT AUTHOR: ADAM THOMPSON
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development economics

DISCLAIMER

Development Economics has taken every care to ensure the correctness of all the information contained in this report. All information has been obtained by what are considered to be reliable sources, and Development Economics has no reason to doubt its accuracy. It is however the responsibility of all parties acting on information contained in this report to make their own enquiries to verify correctness. This document has been prepared for the use of Hamilton City Council only.

CONTACT DETAILS

P: 09 9638776

POBox 331232 Takapuna, Auckland, NZ

www.developmenteconomics.co.nz

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1. EXECUTIVE SUMMARY

Over the past decade Hamilton City has experienced a rise in population and employment that has outpaced its production of new housing. The result is an undersupply of housing that is affordable to a range of households, particularly low and middle income households.

Over the past decade house prices have surged well beyond the cost of production, indicating that there is not enough land available for new development. The purpose of this report is to quantify this market failure and to identify the possible causes.

The principal methodology used is an evaluation of whether the price of new houses and sections greatly exceed the cost of producing them. It is our view that a significant gap between house and section prices and the cost of producing them is evidence of a market failure. This provides the basis for testing the impact of an increased development contribution on new house and section prices.

Our analysis finds that the price of new houses and sections exceed the cost of producing them by approximately $50,000. This implies that if enough development land was made available (both greenfield and infill) the price of new residential sections would reduce to $140,000 (compared to the current price of $190,000).

Policy that facilitates less expensive housing would significantly improve the social and economic wellbeing of the population. To put this into context, if each of the 10,000 new households added to the City over the next decade were to save $50,000, this would equate to a $500m saving in housing costs over this period.

Achieving more affordable housing is simply a matter of increasing the supply of development land, either greenfield, infill or both (with infill including intensification capacity). It is our view that supply equivalent to ten years demand is required to enable the property market to work efficiently, however this should only include those properties that are likely to be made available to the market over this period (e.g. exclude land that is not serviced).

For Hamilton City this would equate to at approximately 1,500 – 2,000 hectares of land (if only greenfield development is relied upon to meet future housing needs). At present there are approximately 500 hectares of undeveloped residential zone land and 1,000 hectares of future residential zone land. If the future residential zone land was made available to the market it would be approximately sufficient to ensure house and section prices are in line with their costs of production.

Policies that increase the supply of development land by this amount would in turn introduce an alternative set of problems. Most notably there would be an incentive for the market to compete through providing larger sections, resulting in a lower density pattern of development that increase travel times and infrastructure costs. In this instance a providing maximum lot sizes would be an effective policy response, and this would provide an incentive for developers to produce better quality developments to enable smaller sections and houses to be sold.

The City has estimated that an increase in greenfield development contributions of $15,000 - $36,000 per lot is necessary to provide services for new development land. Any increase would be passed on to the section or house buyer, however would in our opinion be offset by a reduction in section or house prices by $50,000 (assuming a significant increase in the supply of development land).

Infill development has been evaluated and is considered feasible, as evidenced in the number of new properties being developed in established neighbourhoods. If the City intends to meet the needs of a significant number of future residents through infill development, it is important to accurately monitor the number of potential development properties available to the market. It should be noted that many properties are owned for many years and these are effectively not available to the market for development. There is potential to increase supply through lowering minimum section sizes, and this would in effect bring forward the redevelopment potential of all properties by many years (as more intensive developments are often more profitable), supporting a more efficient urban structure.

The feasibility of apartment development has been evaluated for both the residential high density zone and the city centre zone. In both instances apartment development is not considered feasible. This is largely due to the high price of apartment construction relative to stand alone and terrace houses. At present there are around 400 apartment units in Hamilton, and the majority of these are in retrofitted commercial buildings. The sale prices of these apartments are well below the cost of producing new apartments, suggesting that it will be at least a decade, and possibly longer, before any new apartment buildings are built.

The second part of this report evaluates the types of households that will reside in Hamilton over the next 30 years and their housing preferences and needs. A proprietary residential market analysis system called Target Market Pro has been used to prepare the following forecast, with some summary results presented below.

Group	Profile	2011	2041	30 yr Grwth
Empty Nesters & Retirees	Small City Success	3,600	6,100	2,500
	Home Town Nesters	5,400	9,900	4,500
	Kiwi Seniors	4,800	9,000	4,200
	Sub-Total	13,900	24,900	11,000
Younger Singles & Couples	Small City Achievers	2,300	3,400	1,100
	Blue Collar Kiwiana	3,900	6,000	2,100
	Young Battlers	4,400	6,700	2,300
	No Nest Small City	4,300	6,400	2,100
	Sub-Total	14,900	22,400	7,500
Traditional & Non-Traditional Families	Affluent Families	5,700	8,400	2,700
	Hometown Lifestyle	8,200	13,000	4,800
	Family First	3,500	6,000	2,500
	Small City Solo Mums	5,000	8,200	3,200
	Sub-Total	22,400	35,600	13,200
	Total	51,200	82,900	31,700

The future housing demand profile over the period out to 2041 is not expected to change significantly from the present demand profile. In particular the evidence indicates:

- 81% of new home buyers will prefer to buy a stand alone houses
- 18% of new home buyers will prefer to buy a terrace house (or unit)
- 1% of new home buyers will prefer to buy an apartment.

It is our view that policy should be broadly consistent with this demand profile to ensure Hamilton remains competitive as a destination for new residents and businesses.

2. INTRODUCTION

Housing is the linchpin of a sustainable city. It is inextricably linked with a prosperous economy, a quality environment and social equity. This report examines two important aspects of the housing market - the cost of supplying housing (including the impact of development contributions) and the future demand for housing.

It is not the purpose of this report to provide a comprehensive strategy for affordable housing, rather it is to evaluate whether there are any constraints on the supply of new houses and sections. For this reason other housing matters, such as subsidised housing, are not addressed.

The first half of the report (sections 3-5) addresses housing affordability and in particular compares the fundamental costs of producing new houses and sections with sale prices. The methodology utilised is a series of 'development feasibility studies' which determine the cost of supplying houses to the market in different locations (or zones) across the City.

The second half to the report (section 6) examines the market potential (or need) for housing. This is based on an evaluation of the current and future household types in Hamilton City and their preferences for different housing typologies and prices. A proprietary housing market potential and preferences analysis tool called Target Market Pro is used which links household demographics with housing preferences, price points and other factors.

3. HOUSING AFFORDABILITY & THE FUNDAMENTAL COST OF PRODUCING HOUSING

Housing affordability advocates often argue for the 'ability to pay' as the relevant benchmark of whether housing is affordable. Ability to pay is typically measured as housing costs as a percentage of income, e.g. households should pay no more than 30% or 40% of their income on housing. It is

our view that this measure of affordability is of limited use and potentially misleading as it does not account for local demographic factors, such as the number of retirees or households in poverty in a city or town.

A more useful measure of affordability, in our view, is the 'fundamental cost of production' of housing, and in particular whether the sale prices of new sections or houses significantly exceed the fundamental cost of producing them. If sale prices greatly exceed the fundamental cost of production, then we would conclude that there is a market failure and that house prices are too expensive (making them less affordable). Fundamental costs of production refer to the normal costs of developing a new residential section or house, and assume that the market is able to provide these goods and services efficiently.

The focus of this study is therefore on the supply of new housing as this enables a natural policy response (as housing demand is largely outside the scope of policy influence of the City).

Housing is supplied through the property market. The property market is one of the least efficient of all markets, with some of the common market failures including:

- imperfect knowledge of buyers and seller,
- the unwillingness of owners to sell property, even for a monetary gain,
- the immobility of capital once it is invested in a property,
- the cost and time involved in selling and purchasing property,
- inefficient and costly consent processes,
- constraints on the supply of land for development, and,
- the inability of developers to respond quickly to changes in demand.

This study focuses on the most common market failure – constraints on supply of land for development. A series of 'development feasibility studies' have been used to determine whether the prices of new houses exceed the costs of producing these houses, thereby indicating a market failure. Given house construction costs are relatively fixed, regardless of location, the focus is on the cost of producing new residential sections.

Table 1 presents the results of a development feasibility study of eleven different suburbs, including both new greenfield properties (on the urban periphery) and infill properties (within established suburbs).

The development feasibility studies show median land purchase and sales prices (obtained from recent sales data for the year ending March 2011) and current costs of production. The development feasibility studies include the construction costs, council fees and contributions, finance costs and a normal profit (20%).

Four key conclusions can be drawn from this analysis.

1. The cost of producing new greenfield sections exceeds infill sections by approximately $50,000. The higher prices paid for new greenfield sections can be attributed to the provision of large scale public infrastructure (roading, water, stormwater, sewer), larger development contributions and the higher cost paid for raw development land.
2. Many greenfield properties are not currently economic for development. It is common for property values to decline or plateau during economic recessions, eroding profit margins for developers. The developers that have purchased raw development land at the recent high

prices are faced with the option of selling the land for a lower price or incurring larger holding costs as they wait for sale prices to rise again, with both options resulting in a loss. Normal market processes will ensure that development properties are made available to the market at acceptable rates, often through mortgagee sale. Farmers that have land banked and are becoming developers account for the current value as development land in their feasibility studies, as this is their opportunity cost (i.e. what they could sell it for).

3. The cost of producing a greenfield residential section would diminish by $50,000 if more development land was available. Increasing the land supply is the primary policy tool available to ensure the provision of inexpensive or affordable housing. With 1,000 additional households expected to reside in Hamilton annually, aggregate housing costs would reduce by $50m each year those that have purchased new houses.

4. Suburban infill properties currently present viable development opportunities. Increasing infill capacity is also an important policy tool for providing affordable housing. In Hamilton the raw cost of obtaining a new section, via a simple two section subdivision, is estimated at $30,000 - $50,000 (i.e. developers pay an additional $30,000 - $50,000 for a larger property that can be subdivided). In addition to the land cost, other development costs are estimated at $90,000 (including a typical profit of 20%). This means that the cost of producing a new infill residential section is approximately $130,000.

TABLE 1: RESIDENTIAL SECTION DEVELOPMENT FEASIBILITY STUDY (GREENFIELD & INFILL)

	Greenfield					Infill					
	Rototuna	Huntington	Horsham Downs	Flagstaff	Brymer*	Melville	Fairfield	Dinsdale North	Glenview	Maeroa	Riverlea
Sale Price											
Average section price	195,000	191,000	171,000	194,000	152,000	130,000	135,000	140,000	140,000	140,000	150,000
Cost of Production											
Land purchase (per 600 sqm lot)	83,000	67,000	50,000	50,000	58,000	30,000	30,000	35,000	35,000	40,000	50,000
Public infrastructure (1)	23,000	23,000	23,000	23,000	23,000	0	0	0	0	0	0
Lot development costs (2)	7,000	7,000	7,000	7,000	7,000	25,000	25,000	25,000	25,000	25,000	25,000
Private consultant fees (3)	3,000	3,000	3,000	3,000	3,000	11,000	11,000	11,000	11,000	11,000	11,000
Council fees (4)	1,000	1,000	1,000	1,000	1,000	6,000	6,000	6,000	6,000	6,000	6,000
Development contribution	37,000	37,000	37,000	37,000	11,000*	11,000	11,000	11,000	11,000	11,000	11,000
Sale costs (5)	8,000	8,000	7,000	8,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000
Finance (6)	16,000	15,000	13,000	13,000	11,000	9,000	9,000	10,000	10,000	10,000	11,000
Other costs (7)	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Profit (20%)	36,000	33,000	29,000	29,000	25,000	20,000	20,000	21,000	21,000	22,000	25,000
Total Costs	217,000	195,000	172,000	173,000	147,000	120,000	120,000	127,000	127,000	134,000	147,000
Additional profit (above 20%)	*-22,000*	*-4,000*	*-1,000*	*21,000*	*5,000*	*10,000*	*15,000*	*13,000*	*13,000*	*6,000*	*3,000*

(1) roading, water, stormwater, sewer

(2) connection to power, water, gas, phone, driveway (infill), crossing, fencing, landscaping

(3) surveyor, engineer, geotech, valuer

(4) consent, inspections, 223, 224C

(5) sales commission, marketing

(6) 8% finance for 18 months

(7) miscellaneous, contingency

** Brymer is a greenfield area, however falls within an infill development contributions area*

3.1. THE PRICE OF RESIDENTIAL DEVELOPMENT LAND

The price of residential development land is the most important factor in the feasibility of new development projects. A survey of residential developers was commissioned by Hamilton City in 2008 (Developer Perceptions, Strategic Risk Analysis Ltd). This report found that residential developers were able to purchase residential development land for $300,000/ha in 2003 and that this has increased to $900,000/ha by 2008. Since 2008 there have been no recorded sales in 1ha or greater residential development properties. Indications are however that prices have fallen slightly below their 2008 level.

Good quality agricultural land in the Waikato is currently priced at approximately $50,000/ha. This is a small fraction of the price currently being paid for residential development land, suggesting that premiums in excess of $700,000/ha are being paid.

It is estimated that developers are currently paying $65,000 per section for residential development land (on the basis of current densities or around twelve 600m^2 sections per hectare). It is our view that these prices would be around $15,000 per section if there was efficient access to residential development land, with the difference ($50,000) being passed on directly to the consumer.

3.2. DEVELOPMENT CONTRIBUTIONS

Development contributions of $37,300 currently apply to greenfield sections. This equates to around 20% of the total cost of producing a new section, which have a current value of approximately $190,000.

For infill sections, development contributions of $11,400 per section currently apply. This equates to around 8% of the total cost of producing a section, which have a current value of approximately $140,000.

4. APARTMENT DEVELOPMENT

Apartment buildings (units joined vertically) are substantially different to stand alone and terrace houses (units joined horizontally), both in terms of their construction and the lifestyle they offer. Apartments are made from concrete or steel framed buildings and have a construction cost $2,500/m^2. This greatly exceeds the cost of building stand alone and terrace houses ($1,500/m^2).

The construction cost of an 80m^2 apartment (a small two bedroom unit) is approximately $250,000 when one car park and other common areas are included. The same size unit in a stand alone or terrace house would cost $150,000, a significant $100,000 less.

In order for an apartment development to be feasible, the higher construction cost must be offset with a lower land cost, as buyers are unwilling to pay for more costly building materials. For an 80m^2 apartment, $100,000 must be offset through lower land costs.

In addition to the additional construction costs, apartment developments present greater risks for the developer and financier. In particular, banks account for potential construction cost overruns with higher finance costs, and expect a high proportion of the building to be presold (80%-100% at present). There is also the risk that some buyers have speculated on the price increasing over the construction period. If prices actually decrease over this period some buyers may choose to forfeit their deposit. Additionally there is the risk associated with speculators looking to sell simultaneously once the building is finished. This can quickly reduce prices, which can erode profits for developments that require sales after construction. Finance costs are also increased by the nature of

the construction process, which requires all units to be built at once (i.e. stand alone and terrace house developments are built incrementally, which reduces risk and allows profits from the first units to be accessed before the development is completed).

Apartments provide lower amenity for occupants than stand alone and terrace houses, as they do not include a private area of land and involve many shared spaces. This can be offset by providing a good view from the higher levels.

In summary apartments cost more to build per square metre, present greater risk and financial cost to build, and do not offer the same level of amenity as other housing typologies.

The implication of the additional costs is that apartment developments are only be feasible where a developer is able to buy land at the following prices:

1. $0 per apartment unit in locations where stand alone house sections cost $200,000
2. $50,000 per apartment unit in locations where stand alone house sections cost $250,000
3. $100,000 per apartment unit in locations where stand alone house sections cost $300,000

Apartments are therefore only feasible in the highest value areas. In most developed cities this includes areas within or adjacent to the CBD, or near the coast or other areas of high natural amenity.

At present very few of the City's sections are valued above $250,000 (and most of these are lifestyle sections) indicating that apartments are only feasible in a small number of areas. This is confirmed by historical development patterns where only a small number of apartments have been built, despite policy that supports apartments (High Density Residential Zone).

The following paragraphs present a series of 'development feasibility studies' for apartments in different locations across the City. These studies are intended to provide empirical support to the foregoing theory. The feasibility studies are prepared for medium intensity development's, in particular 30 apartments contained in a five storey building. This size of development enables the developer to compete effectively for land, but is not so large that it becomes difficult to achieve the necessary pre-sales.

A 'bottom up' feasibility model has been used. This determines the sale price that is needed to be achieved to make the development feasible. The developer can then determine whether this sale price is likely to be achieved given the current market prices.

A site area of 2,000m^2 is required to accommodate a five storey building with 30 apartments. Within the central city there are no vacant sites that are suitable for development, meaning land prices also include the cost of existing buildings. At present land prices in the central city range from $500 - $1,500/m^2 (with older building included). In Table 2 three scenarios have been adopted that span this range.

When all costs are accounted for, it is estimated that an 80m^2, two bedroom apartment, with one car park, would need to achieve a sale price of $480,000 - $576,000 to present a commercially viable development project.

TABLE 2: APARTMENT DEVELOPMENT FEASIBILITY STUDY (CENTRAL CITY)

Scenario (Land purchase price per sqm, including buildings)	$500	$1,000	$1,500
Sale Price Required (for feasible development)			
Sale price required per sqm of living space (1)	6,000	6,600	7,200
Sale price required for 80m2 unit	480,000	528,000	576,000
Cost of Production			
Land purchase (for 30 unit development site)	1,000,000	2,000,000	3,000,000
Connection to public infrastructure (2)	250,000	250,000	250,000
Lot development costs (3)	150,000	150,000	150,000
Private consultant fees (4)	600,000	600,000	600,000
Council fees (5)	50,000	50,000	50,000
Development contribution (6)	297,000	297,000	297,000
Construction costs (7)	7,800,000	7,800,000	7,800,000
Sale costs (8)	200,000	220,000	240,000
Finance (9)	1,290,000	1,410,000	1,530,000
Project Management (10)	200,000	200,000	200,000
Other costs (11)	200,000	200,000	200,000
Profit (20%)	2,407,000	2,635,000	2,863,000
Total Costs	14,445,000	15,813,000	17,181,000

(1) includes decking
(2) connection to power, water, gas, phone, driveway crossing, fencing, landscaping
(3) clear site for development
(4) architect, engineer, valuer, surveyor, geo-tech, etc
(5) consent, inspections, 223, 224C
(6) infill
(7) $2,500/m2 for apartments, $1,500/m2 for service areas
(8) sales commission, marketing (negotiated)
(9) 10% finance for 18 months - adjusted
(10) 2% management fee
(11) Contingency

At present there are approximately 300-400 apartments in the central city. The majority of these are retrofitted commercial buildings, and achieve sale prices of around $2,000 - $4,000/m^2. The estimated minimum price required to support apartment development in the central city is $6,000/m^2, a level that is consistent with other cities across New Zealand. It is unlikely that this sale price would be achievable in Hamilton currently as other stand alone and terrace houses adjacent to the central city are comparatively much less expensive. There may however be some isolated locations that offer sufficient potential amenity to achieve these prices, in particular river and lake edge properties.

The High Density Residential zone has been tested for development viability in Table 3. The development controls enable one apartment unit per 150m^2 of site area, a maximum height of three levels, and a maximum site coverage of 40%. Assuming a 2,000m^2 site, this would accommodate 13 apartments of 80m^2 and associated carparking. The High Density Residential zone land adjacent to the city centre offers the most promising opportunity for apartment development in Hamilton, due to the lakefront and waterfront amenity. Prime sites in these locations are priced at approximately $500 - $1,000/m^2, with the later accounting for properties that have some capital improvements.

At the lower land price of $500/m^2 (i.e. $500,000 for a quarter acre), the minimum sale price required to make the development feasible is $6,500/m^2 ($520,000). At the higher land price of $1,000,000 the price increases to $7,800/m^2 or ($624,000). These prices are higher than the cost

in the Central City, due to higher per unit land costs, however these may be offset by better amenity near the river or lake front.

It is our view that apartments in the High Density Residential zone are not feasible in any significant numbers. Current prices achieved for retrofitted commercial building apartments are in the $2,500/m^2$ to $4,000/m^2$ range, appreciably higher than the 'required sale price' of $6,500/m^2$ - $7,800/m^2$. Given this differential, it is likely to be at least ten years before an apartment market begins to establish in Hamilton (a conclusion also reached by Harrison Grierson in their 2010 Intensification Report). This is in large part due to the city's geography, in particular because there are no highly sought after beachfront properties which are typically the first locations to become viable for apartments and thereby act as a catalyst for the wider city market.

Increased density provisions, particularly in the higher amenity High Density Residential zone, would bring forward the apartment development potential of these areas, however this needs to be balanced against any adverse effects on the amenity of the neighbourhood.

TABLE 3: APARTMENT DEVELOPMENT FEASIBILITY STUDY (HIGH DENSITY RESIDENTIAL ZONE)

Scenario (Land purchase price per sqm, including buildings)	$500/m2	$1000/m2
Sale price required per sqm of living space (1)	6,500	7,800
Sale price required for 80m2 unit	520,000	624,000
Cost of Production		
Land purchase (for 2,000m2 development site)	1,000,000	2,000,000
Connection to public infrastructure (2)	125,000	125,000
Lot development costs (3)	150,000	150,000
Private consultant fees (4)	300,000	300,000
Council fees (5)	25,000	25,000
Development contribution (6)	129,000	129,000
Construction costs (7)	2,990,000	2,990,000
Sale costs (8)	120,000	120,000
Finance (9)	605,000	725,000
Project Management (10)	100,000	100,000
Other costs (11)	100,000	100,000
Profit (20%)	1,129,000	1,353,000
Total Costs	6,773,000	8,117,000

(1) includes decking
(2) connection to power, water, gas, phone, driveway crossing, fencing, landscaping
(3) clear site for development
(4) architect, engineer, valuer, surveyor, geo-tech, etc
(5) consent, Inspections, 223, 224C
(6) infill
(7) $2,500/m2 for apartments, $1,500/m2 for service areas
(8) sales commission, marketing (negotiated)
(9) 10% finance for 18 months - adjusted
(10) 2% management fee
(11) Contingency

5. IS HOUSING AFFORDABLE IN HAMILTON?

Greenfield section prices have been estimated to exceed the fundamental cost of production by approximately $50,000, and this cost is transferred directly to the price of each new house. These prices are able to be achieved in the market as there are no other options for buyers (other than other cities), and developers are forced to compete for a small number of development properties and bid up their prices. This has reduced the affordability of housing for both those living in the City and those arriving to the City.

Policy changes that make provision of enough land for development would undoubtedly make housing more affordable in Hamilton, with section prices of around $140,000 achievable. Those households that currently fall short of the finance requirements for an entry level house (i.e. households that can only achieve finance for approval of an amount that falls short of entry levels houses by $50,000) would be able to afford to purchase a house if prices were reduced by this amount. Determining the number of households would require an analysis of household income and expenses, however this falls outside the scope of this study. For households that rent, lower house prices would result in a saving of $60 per week or $3,100 annually.

There are other policy responses that the City can use to increase the potential supply of houses. The most important are policies that enable new houses to be developed in existing neighbourhoods. The analysis of the Residential zone demonstrated that development is feasible (and there are indeed many lots being created in these areas). If infill development is required to meet the needs of the expanding population, then actual development potential needs to be properly quantified and monitored as there are many possible factors that can make a property uneconomic for subdivision, such as having immediate access to a sewer or space of a new driveway to access a rear lot. The replacement of older buildings can also be brought forward significantly by providing for smaller section sizes.

New apartment building development is not presently feasible in Hamilton. Most of the existing apartments are retrofitted commercial buildings, and were likely to be unable to find other suitable tenants. This does not however present any issues for the affordability of housing generally as small stand alone and terrace houses provide far cheaper alternatives (for example a 60m^2 stand alone house could be built for around $80,000 using low cost materials). Small infill sections of 150-200m^2 would be required to enable new 60m^2 single level units to be feasible. Such a house and land could be profitably built for under $200,000, and this would provide entry level housing for many low income households.

It is our view that the only obstacle to reducing residential section prices to a level that is in line with the fundamental costs of producing these sections is the supply of land for development (either greenfield or infill). There should be at all times sufficient development land available to the market, and approximately ten years demand is considered the minimum amount required (note this excludes properties that are not available for purchase or development). In practical terms this will ensure that there are a large number of development properties available for purchase at any time, ensuring there is proper competition between sellers.

Given current housing demand forecasts of around 10,000 per decade, it is likely that a total of approximately 1,500-2,000 hectares of land is required to provide an efficient market and ensure prices remain competitive. This estimate makes allowance for properties that are not made available to the market for development[1].

Under the low growth scenario this would equate to approximately 1,500 hectares of land (7,500 additional houses per decade). Under the high growth scenario this would equate to approximately 2,200 hectares of land (11,000 additional houses per decade).

With strong long term growth prospects for the City, it is our view that continued greenfield development (in combination with policies to enable continued infill development) is required to ensure that property prices remain affordable in Hamilton City. This would require a shift in policy from requiring minimum section sizes to policy requiring maximum section sizes to ensure land use continues to support efficient access to the cities employment, education and other amenities (i.e. the low price of development land would provide an incentive for developers to compete on section size, and this would generate other costs of the city).

5.1. THE EFFECT OF INCREASED DEVELOPMENT CONTRIBUTIONS

The cost of providing public services for this land is an important consideration. There large additional costs, particularly once significant plant upgrades are required.

The City has estimated development contributions at $52,000-$72,000 for the Rotokauri growth cell and $53,000-$73,000 for the Peacock growth cell, significantly higher than the current development contribution of $37,000 for greenfield sections.

The estimated cost of development contributions is high by national standards. In order to meet the additional costs of servicing new greenfield growth areas, the City has estimated that development contributions will need increase from their current level by $15,000-$36,000.

The greenfield land that is available for development has agriculture as its second best use, which is considerably lower in value than residential development land (approximately $50,000 per hectare). Any increase in development contributions will be factored into the developers feasibility or costing for the development, and will ultimately lower the price that the developer is able to pay for the development land, while remaining profitable. Development will be feasible if this price continues to exceed the agricultural value. This does however assume an efficient market is operating, which would require a significant

[1] To determine the exact supply of residential land that would be required to provide "affordable" housing in the sense of prices that are consistent with the fundamental cost of production, is beyond the scope of this report. Such an analysis would involve more detailed modelling of the city's available development land (both greenfield and infill) and in particular an analysis of the total number of properties that are feasible for development/redevelopment under the current development controls. Factors to consider include, for example, geographic constraints (e.g. steep terrain), access to infrastructure, minimum lot size, building envelopes, existing house location, whether land is being 'land banked', and the proportion of properties that are not available to the market due to normal household relocation rates. Such a model would be able to test the impact of new zoning rules on market potential (i.e. the impact of reducing minimum lot size on capacity).

increase in greenfield land or infill capacity. If there is an insufficient supply of greenfield land, and the market for this type of land is not able to work efficiently, a large portion of the increase in the development contributions is likely to be added to the section and house prices.

The effect of increasing development contributions will be to reduce the windfall profit of land bankers, and will have the effect of redirecting the increases in land value to public infrastructure. Such an outcome is considered socially equitable as increases in land value are ultimately a reflection the contributions made by all residents and businesses in the City, rather than of individual land bankers.

6. HOUSING DEMAND IN HAMILTON CITY

The key determinants of housing demand are employment opportunities and consumption amenities, such as climate, schooling and recreation opportunities. As part of the Future Proof sub-regional growth strategy a thorough analysis of employment and household growth was prepared for Hamilton City by the University of Waikato. This provides a relevant basis for determining the future quantity of houses that will be demanded (i.e. these forecasts account for future employment opportunities and consumption amenities). Of more importance however, is the future typology of housing that will be demanded, as this will require a policy response. This is addressed in the following sections.

6.1. CURRENT & FORECAST HOUSEHOLD TYPES

Table 4 shows the current and forecast household profile for Hamilton City. This is based on the proprietary Target Market Pro system and has been based on the University of Waikato household forecasts.

As with most cities is New Zealand there is strong growth forecast in the Empty Nester & Retiree sector due to the aging of the Baby Boomer cohort. The largest growth sector is however forecast in the Traditional & Non-Traditional Family sector, with an additional 13,200 households forecast over the next 30 years. Younger Singles & Couples are forecast to have moderate growth, with an additional 7,500 households over the next 30 years.

TABLE 4: HOUSEHOLD PROFILE FORECASTS (TARGET MARKET PRO)

Group	Profile	2011	2016	2021	2026	2031	2036	2041	30 yr Grwth
Empty Nesters & Retirees	Small City Success	3,600	4,000	4,400	4,800	5,200	5,700	6,100	2,500
	Home Town Nesters	5,400	6,000	6,700	7,500	8,300	9,100	9,900	4,500
	Kiwi Seniors	4,800	5,500	6,200	7,000	7,600	8,300	9,000	4,200
	Sub-Total	13,900	15,500	17,300	19,200	21,200	23,100	24,900	11,000
Younger Singles & Couples	Small City Achievers	2,300	2,400	2,600	2,700	3,000	3,200	3,400	1,100
	Blue Collar Kiwiana	3,900	4,200	4,600	5,000	5,300	5,600	6,000	2,100
	Young Battlers	4,400	4,700	5,000	5,400	5,800	6,300	6,700	2,300
	No Nest Small City	4,300	4,600	4,800	5,200	5,600	6,000	6,400	2,100
	Sub-Total	14,900	15,800	17,000	18,300	19,600	21,000	22,400	7,500
Traditional & Non-Traditional Families	Affluent Families	5,700	6,100	6,600	7,000	7,500	7,900	8,400	2,700
	Hometown Lifestyle	8,200	8,900	9,600	10,400	11,300	12,200	13,000	4,800
	Family First	3,500	3,900	4,400	4,800	5,200	5,700	6,000	2,500
	Small City Solo Mums	5,000	5,500	6,100	6,700	7,200	7,700	8,200	3,200
	Sub-Total	22,400	24,400	26,700	29,000	31,300	33,500	35,600	13,200
	Total	51,200	55,700	61,000	66,500	72,100	77,700	82,900	31,700
Group	Profile	2011	2016	2021	2026	2031	2036	2041	30 yr Grwth
Empty Nesters & Retirees	Small City Success	7%	7%	7%	7%	7%	7%	7%	8%
	Home Town Nesters	11%	11%	11%	11%	12%	12%	12%	14%
	Kiwi Seniors	9%	10%	10%	11%	11%	11%	11%	13%
	Sub-Total	27%	28%	28%	29%	29%	30%	30%	35%
Younger Singles & Couples	Small City Achievers	4%	4%	4%	4%	4%	4%	4%	3%
	Blue Collar Kiwiana	8%	8%	8%	8%	7%	7%	7%	7%
	Young Battlers	9%	8%	8%	8%	8%	8%	8%	7%
	No Nest Small City	8%	8%	8%	8%	8%	8%	8%	7%
	Sub-Total	29%	28%	28%	28%	27%	27%	27%	24%
Traditional & Non-Traditional Families	Affluent Families	11%	11%	11%	11%	10%	10%	10%	9%
	Hometown Lifestyle	16%	16%	16%	16%	16%	16%	16%	15%
	Family First	7%	7%	7%	7%	7%	7%	7%	8%
	Small City Solo Mums	10%	10%	10%	10%	10%	10%	10%	10%
	Sub-Total	44%	44%	44%	44%	43%	43%	43%	42%

Source: Target Market Pro, HCC

6.2. HOUSING DEMAND FORECASTS BY PRICE, SIZE & TYPOLOGY

Table 5 shows the demand forecast by housing typology for Hamilton City for the Low, Medium and Medium EDA forecasts (prepared by the University of Waikato).

Under the Medium Scenario, forecast demand over the 2011-2041 period is for an additional 22,900 stand alone houses, 6,000 terrace houses and 300 apartments. This assumes a modest increase in housing intensity (0.1% per annum) which is consistent with the trends experienced in other cities across New Zealand.

TABLE 5: HOUSING TYPOLOGY DEMAND FORECAST HAMILTON CITY

Growth Scenario	Low			Medium			Medium EDA		
Year	Stand Alone	Terrace Houses	Apartments	Stand Alone	Terrace Houses	Apartments	Stand Alone	Terrace Houses	Apartments
2011	41,700	8,500	500	42,100	8,600	500	42,600	8,700	500
2016	44,400	9,200	500	45,700	9,500	500	46,300	9,600	500
2021	47,500	10,000	600	49,900	10,500	600	50,500	10,600	600
2026	50,800	10,800	600	54,300	11,600	600	55,000	11,700	600
2031	53,900	11,800	600	58,600	12,800	700	59,300	13,000	700
2036	57,100	12,600	600	63,000	13,900	700	63,800	14,100	700
2041	59,800	13,500	700	67,100	15,100	800	67,900	15,300	800
2046	62,400	14,000	700	71,100	16,000	800	72,000	16,200	900
2051	64,800	14,600	800	75,200	16,900	900	76,100	17,100	900
2056	67,100	15,100	800	79,700	17,900	900	80,100	18,000	1,000
2061	69,200	15,600	800	84,400	19,000	1,000	84,200	18,900	1,000
30 yr Grwth	18,100	4,900	200	22,900	6,000	300	25,300	6,600	300

Source: Target Market Pro, HCC

Target Market Pro enables the housing price and rent preferences of a market to be determined. Table 6 provides the typical house size, price and rent levels of each profile.

TABLE 6: AVERAGE HOUSE SIZE, PRICE AND RENT BY HOUSEHOLD TYPE

Group	Profile	Bedrooms	House Size (sqms)	Price (000's)	Rent/week
Empty Nesters & Retirees	Small City Success	3.5	170	580	270
	Home Town Nesters	2.8	100	290	160
	Kiwi Seniors	2.7	90	320	130
	Sub-Total	3.0	120	400	190
Younger Singles & Couples	Small City Achievers	3.3	150	490	280
	Blue Collar Kiwiana	2.6	80	380	210
	Young Battlers	2.6	80	280	210
	No Nest Small City	2.9	110	410	190
	Sub-Total	2.9	110	390	220
Traditional & Non-Traditional Families	Affluent Families	3.9	210	490	290
	Hometown Lifestyle	3.6	180	290	250
	Family First	3.3	150	270	220
	Small City Solo Mums	3.1	130	240	200
	Sub-Total	3.5	170	320	240

Source: Target Market Pro

6.3. FUTURE HOUSING DEMAND & POLICY IMPLICATIONS

The current and short term (five years) demand for housing can be determined through the Target Market Pro system, which shows growth by household type and the intended timing of their next purchase. To understand long term demand it is useful to examine the factors that influence demand for higher density terrace house and apartment houses.

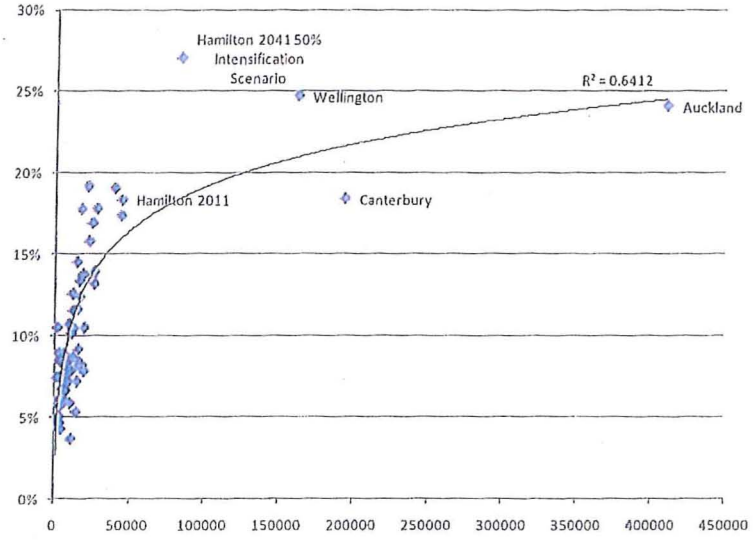
Figure 1 plots the proportion of terraced houses and apartments (y axis) against city size (x axis) for New Zealand cities. The R^2 coefficient shows that 64% of a cities demand for terrace houses and apartments can be explained by its total size in terms of households (geographic features such as access to beaches or limited areas of flat land are likely to explain most of the balance).

More detailed analyses reveal that in the larger cities there is a very high demand to live in the central suburbs, as these locations offer the best access to jobs and other consumption amenities. Households that live in higher density houses in the central suburbs are trading off smaller houses and sections for better access to jobs and other consumption amenities. By implication cities must have constraints on access to the central areas or other areas of high amenity to generate high demand for terrace houses and apartments.

Hamilton presently has 17% terrace houses and apartments, which is consistent with other cities of its size (Dunedin 17%, Tauranga 19%). The proposed intensification scenario (50% infill by 2041) will increase this to 27% by 2041, making Hamilton the highest density city in New Zealand, particularly when considered relative to its population.

The implication is that if Hamilton City follows the trends evident in other New Zealand cities, it is likely to increase its proportion of terrace houses and apartments by 2% as it increases in size from 51,000 to 83,000 households over the 2011-2041 period. This rate of increase has been factored into the household projections presented in Table 5.

FIGURE 1: CITY SIZE AS A DETERMINANT OF DEMAND FOR TERRACE HOUSES & APARTMENTS



Housing policy can be used to shift households towards living in more terrace houses and apartments, and this will indeed increase a city's efficiency, particularly in transport and infrastructure. There are however important benefits that are associated with the current lower density housing that should be considered. Most notably, lower density housing is the preferred form of housing and is fundamental to attracting new residents to a city, particularly when considered in context with the competition other cities.

Based on the foregoing it is our view that the future housing demand profile over the period out to 2041 is not expected to change significantly from the present demand profile (around a 2% shift towards terrace housing and apartments over this period). In particular the evidence indicates:

- 81% of new home buyers will prefer to buy a stand alone house
- 18% of new home buyers will prefer to buy a terrace house (or unit)
- 1% of new home buyers will prefer to buy an apartment.

In addition to the preferences of new home buyers, there are some underlying economic factors that support these trends. Most notably the development of new sections and houses has many fixed costs, for example connection to services, professional services and development contributions. The fixed costs create an incentive to produce more expensive (typically larger) sections and subsequently more expensive larger houses. There are also greater cost efficiencies available to developers undertaking large greenfield developments (e.g. bulk materials purchasing).

Apartment developments are uneconomic in most locations in New Zealand because they are expensive to build, and offer poor value for money for buyers. In the last few decades almost all new apartments have been built in expensive areas, typically near the waterfront or the CBD in large cities. Apartments are only feasible if they enable home buyers to purchase in a location that they would otherwise not be able to afford. As Hamilton is a small city and is not located near a beach it does not generate the extremes in demand for specific areas that is necessary to support significant numbers of apartments. It is our view that this is unlikely to change for several decades.

The primary conclusion that can be drawn from the foregoing analyses is that future housing demand in Hamilton will be largely for stand alone houses. Policies that are not aligned with this demand profile will potentially reduce the competitiveness of Hamilton as a destination for new residents and businesses. This is supported by international trends, with the most high growth cities providing the option of *both* lower and higher density living.

It is our view that housing policy should account for three key findings:

Key Finding 1: Greenfield development is the least expensive form of new housing as it can access inexpensive greenfield land and enables economies of scale for developers. A development pattern that has a large proportion of greenfield housing (either stand alone or terrace houses) will therefore potentially provide the greatest social and economic benefit for the City. These benefits need to be measured against the costs of providing public services and transportation, which are often higher for greenfield than infill development.

Key Finding 2: Infill development provides efficiencies for the City in terms of lower transport costs and better utilisation economies of infrastructure. It is however more expensive to build, as fundamental land costs (i.e. rural land on the urban periphery is the least expensive) are more expensive and there are no economies of scale for developers. The geographic size of the City also means that there is little advantage at present for individual residents of living in close proximity to the CBD as it is accessible from all locations.

Key Finding 3: Apartments are unlikely to be viable in any significant numbers for the next 1-2 decades.

It is our view that the housing policy that provides for the greatest social and economic wellbeing for the City would have the following objectives:

Objective 1: Achieve affordable housing through provision of enough greenfield development land to ensure prices paid for this land are only marginally higher than rural land. Regulate land subdivision to enable stand alone housing on the smallest possible lots that the market will accept (i.e. apply a maximum rather than a minimum section size). This would ensure developers do not compete on section size (i.e. compete by providing larger sections) which would cumulatively lower the density of the City and be less efficient. It is likely that a maximum section size of 450-500m^2 would be acceptable to the market however this would need to be carefully evaluated through surveys of new house buyers (if new sections sizes are too small then the City may become less attractive to new residents). A maximum section size would provide an incentive for developers to create more attractive urban environment as this would enable smaller lots to be sold (the opposite of the current incentive).

Objective 2: Achieve the efficiencies of infill housing by enabling subdivision as far as is practicable. A 1000m^2 site with an existing house could accommodate 6-7 high quality terrace houses, and this would significantly bring forward the feasibility of redevelopment of properties in central locations (i.e. properties would become feasible for redevelopment in fewer years). Such developments will be most feasible in the highest value locations and are unlikely to be viable in low value locations (i.e. households will only accept a small section/terrace house if the location is desirable).

Objective 3: Provide for apartment housing in high amenity locations, however do not rely on this form of housing to meet any significant part of the populations housing needs over the next 1-2 decades.

7. APPENDIX 1: GREENFIELD DEVELOPMENT LAND PRICES

There are very few sales of development land in Hamilton (an average of six annually for the past five years) and that sale prices range significantly. There are many possible reasons for this, such as vendors not knowing the development potential of the land, properties being shifted between companies owned by the same parties, or purchasers simply paying too much for the land to make an economic return.

Given the variation and small sample size the following estimates have been made for Residential zone development land. These estimates are broadly consistent with the findings of a recent report that surveyed developer perceptions (Developer Perceptions, 2008, Strategic Risk Analysis Ltd).

Rototuna	$1,000,000/ha
Huntington	$800,000/ha
Horsham Downs	$500,000/ha
Flagstaff	$500,000/ha
Brymer	$700,000/ha

8. APPENDIX 2: CAU TARGET MARKET PRO FORECASTS (MEDIUM)

2011 Households	Empty Nesters & Retirees			Younger Singles & Couples				Traditional & Non-Traditional Families				Total
CAU	Small City Success	Home Town Nesters	Kiwi Seniors	Small City Achiev-ers	Blue Collar Kiwiana	Young Battlers	No Nest Small City	Affluent Families	Home-town Lifestyle	Family First	Small City Solo Mums	
Bader	151	166	165	51	80	79	130	227	241	41	82	1,414
Beerescourt	194	132	194	57	35	61	107	184	196	34	57	1,252
Bryant	96	168	54	128	55	143	240	466	538	84	164	2,137
Brymer	96	113	76	45	28	38	65	199	165	26	54	905
Burbush	8	7	3	4	2	4	8	20	15	2	4	77
Chartwell	86	137	48	34	54	53	76	162	178	37	83	949
Chedworth	91	134	76	44	51	85	111	223	342	80	86	1,322
Clarkin	107	120	124	52	49	89	75	132	150	72	90	1,061
Claudelands	58	131	44	54	43	113	88	157	240	57	86	1,071
Crawshaw	39	100	40	40	38	79	75	112	210	85	119	937
Dinsdale North	145	160	159	49	77	76	125	218	231	39	79	1,359
Dinsdale South	156	171	170	53	82	82	134	234	248	42	85	1,458
Enderley	167	184	182	56	88	88	144	251	266	45	91	1,563
Fairview Downs	81	140	128	42	55	85	109	104	187	92	131	1,154
Flagstaff	17	125	93	36	123	158	88	53	283	187	328	1,490
Frankton Junction	33	83	94	22	51	70	76	61	146	57	113	807
Glenview	83	225	63	93	59	155	214	296	454	101	135	1,877
Grandview	86	119	115	27	56	81	108	153	180	69	76	1,071
Hamilton Central	92	162	175	55	100	141	124	131	249	121	186	1,538
Hamilton East	161	170	200	73	82	126	116	138	189	78	126	1,460
Hamilton Lake	53	137	127	121	185	250	192	94	282	136	185	1,761
Hillcrest West	69	142	82	73	250	167	155	76	108	74	73	1,268
Horsham Downs	39	103	152	35	119	172	110	35	211	156	219	1,350
Huntington	164	177	107	157	154	263	154	169	248	76	171	1,840
Insoll	33	65	76	31	58	92	51	50	123	84	94	756
Maeroa	93	203	143	59	73	132	116	150	275	103	138	1,483
Melville	215	231	172	58	52	58	124	248	236	85	139	1,617
Nawton	143	203	199	65	71	76	134	226	288	89	130	1,625
Naylor	145	231	314	34	151	141	113	142	209	143	199	1,822
Peachgrove	42	112	143	15	144	97	89	35	191	239	256	1,363
Peacocke	13	27	19	14	16	26	18	19	53	25	29	260
Porritt	86	74	55	23	19	31	55	109	79	22	50	603
Pukete	36	75	53	77	196	129	94	29	48	42	55	834
Pukete West	30	57	107	27	50	57	42	38	98	70	113	690
Queenwood	63	127	85	76	173	177	104	112	93	75	106	1,192
Riverlea	58	81	142	48	80	85	77	60	103	96	123	954
Rotokauri	23	21	47	11	31	28	16	16	23	19	24	259
Rototuna	38	91	97	81	217	138	76	44	103	117	111	1,113
Silverdale	55	79	105	76	134	121	93	64	95	63	76	962
Swarbrick	55	153	188	81	134	151	128	91	232	172	243	1,627
Sylvester	14	31	34	33	250	70	20	43	66	81	59	700
Te Rapa	8	9	19	5	18	8	5	8	20	16	19	135
Temple View	25	30	22	18	55	25	19	43	51	49	33	369
University	171	244	142	55	73	89	128	300	232	87	162	1,684
Total	3,622	5,449	4,832	2,288	3,911	4,387	4,327	5,723	8,175	3,473	4,982	51,169

Source: Development Economics, Target Market Pro

2021 Households	Empty Nesters & Retirees			Younger Singles & Couples				Traditional & Non-Traditional Families				Total
CAU	Small City Success	Home Town Nesters	Kiwi Seniors	Small City Achiev-ers	Blue Collar Kiwiana	Young Battlers	No Nest Small City	Affluent Families	Home-town Lifestyle	Family First	Small City Solo Mums	
Bader	186	204	203	61	95	95	156	280	296	51	102	1,728
Beerescourt	203	138	203	60	37	64	113	195	208	36	60	1,317
Bryant	109	189	61	134	57	149	251	485	560	87	171	2,254
Brymer	95	112	76	45	28	38	65	199	164	26	53	900
Burbush	10	9	4	5	2	4	9	23	17	2	5	91
Chartwell	96	153	53	37	59	58	83	176	193	41	90	1,040
Chedworth	104	154	87	48	55	92	121	240	368	86	93	1,448
Clarkin	110	123	127	53	50	91	76	135	153	74	91	1,083
Claudelands	66	148	49	57	45	119	93	168	256	61	91	1,154
Crawshaw	43	109	44	41	40	83	78	116	219	88	124	986
Dinsdale North	156	172	171	52	82	81	133	235	249	43	85	1,459
Dinsdale South	163	179	178	55	85	85	140	245	260	44	89	1,525
Enderley	202	223	221	67	104	104	170	305	323	55	111	1,886
Fairview Downs	91	157	143	46	60	92	118	114	206	102	144	1,274
Flagstaff	17	125	93	36	123	158	88	53	283	187	328	1,490
Frankton Junction	41	102	116	25	58	80	87	71	170	67	132	948
Glenview	90	244	69	96	62	160	222	307	472	105	140	1,968
Grandview	91	126	122	28	59	85	112	160	189	73	80	1,126
Hamilton Central	139	243	264	73	132	185	163	182	347	168	260	2,155
Hamilton East	181	190	224	80	90	139	127	159	217	90	144	1,640
Hamilton Lake	77	199	186	135	207	279	215	119	355	171	233	2,174
Hillcrest West	79	162	93	75	259	174	161	88	125	86	84	1,385
Horsham Downs	90	236	349	54	183	264	168	62	373	276	386	2,440
Huntington	216	234	141	175	172	293	172	216	316	97	218	2,250
Insoll	33	65	76	31	57	92	50	49	123	83	94	755
Maeroa	105	231	162	65	80	144	127	167	306	114	153	1,656
Melville	224	242	179	61	55	61	131	260	247	89	145	1,694
Nawton	150	214	210	68	74	79	140	237	303	94	137	1,707
Naylor	162	258	350	37	167	156	126	163	238	163	228	2,048
Peachgrove	65	173	220	19	185	125	114	45	244	306	327	1,822
Peacocke	28	59	41	22	26	41	28	33	90	43	49	460
Porritt	93	79	59	25	20	34	59	118	85	24	54	649
Pukete	38	80	56	78	199	130	95	31	51	45	59	862
Pukete West	32	62	115	29	52	59	44	40	104	74	119	730
Queenwood	69	139	93	78	178	183	107	122	101	82	116	1,268
Riverlea	60	84	147	49	82	87	79	62	107	99	128	984
Rotokauri	118	103	234	40	111	100	57	103	155	125	156	1,300
Rototuna	38	91	97	81	217	138	76	44	103	117	111	1,113
Silverdale	75	108	142	86	150	136	104	86	129	85	103	1,204
Swarbrick	74	206	254	95	157	177	150	113	287	213	301	2,028
Sylvester	120	263	290	66	493	139	40	170	261	324	234	2,400
Te Rapa	9	10	21	5	19	8	6	9	22	17	20	146
Temple View	32	38	28	20	61	27	21	49	58	56	38	430
University	207	296	172	67	89	107	154	357	276	104	193	2,023
Total	4,387	6,731	6,221	2,559	4,616	4,997	4,832	6,591	9,610	4,374	6,081	60,998

Source: Development Economics, Target Market Pro

2031 Households	Empty Nesters & Retirees			Younger Singles & Couples				Traditional & Non-Traditional Families				Total
CAU	Small City Success	Home Town Nesters	Kiwi Seniors	Small City Achiev-ers	Blue Collar Kiwiana	Young Battlers	No Nest Small City	Affluent Families	Home-town Lifestyle	Family First	Small City Solo Mums	
Bader	222	244	243	73	114	114	187	334	354	60	121	2,066
Beerescourt	216	147	217	66	41	70	123	212	226	40	66	1,423
Bryant	128	223	72	144	61	160	269	514	594	93	181	2,439
Brymer	98	115	78	46	29	39	67	203	168	27	55	924
Burbush	15	14	6	6	3	6	13	30	22	2	6	125
Chartwell	106	169	59	40	65	63	90	189	208	44	97	1,130
Chedworth	117	173	98	52	60	101	133	256	392	92	99	1,574
Clarkin	116	129	134	56	52	95	80	142	161	78	96	1,140
Claudelands	73	164	55	61	48	127	99	178	272	64	97	1,237
Crawshaw	49	124	51	45	43	89	84	123	232	94	131	1,065
Dinsdale North	172	189	188	57	89	89	146	258	273	47	94	1,602
Dinsdale South	175	193	192	59	92	91	150	263	279	48	96	1,638
Enderley	240	264	262	79	123	123	202	360	381	65	131	2,229
Fairview Downs	103	179	163	51	67	103	132	127	230	113	161	1,430
Flagstaff	17	125	93	36	123	158	88	53	283	187	328	1,490
Frankton Junction	49	122	138	28	66	91	99	80	193	76	150	1,092
Glenview	102	275	77	102	66	171	237	326	501	112	149	2,118
Grandview	100	138	133	31	63	91	121	172	203	78	85	1,215
Hamilton Central	192	337	365	95	172	242	214	240	455	221	341	2,874
Hamilton East	199	210	247	87	99	152	139	178	244	101	162	1,820
Hamilton Lake	100	260	243	151	231	312	240	142	424	205	278	2,587
Hillcrest West	88	181	105	79	270	181	167	99	141	97	95	1,503
Horsham Downs	138	361	532	73	248	358	228	87	520	384	539	3,466
Huntington	216	234	141	175	172	293	172	216	316	97	218	2,250
Insoll	35	68	79	32	59	94	52	51	126	86	96	777
Maeroa	118	258	182	71	88	159	140	183	336	125	168	1,828
Melville	240	258	192	68	60	67	144	278	265	95	156	1,823
Nawton	162	231	227	74	81	86	153	254	325	101	147	1,841
Naylor	178	284	385	41	185	174	140	182	267	183	255	2,274
Peachgrove	91	242	307	25	237	160	146	55	302	378	404	2,347
Peacocke	269	571	399	165	194	313	215	232	644	304	353	3,660
Porritt	102	87	65	28	22	37	66	129	93	26	59	713
Pukete	42	89	62	80	204	134	97	35	57	51	66	917
Pukete West	36	68	127	31	56	64	48	44	112	79	128	793
Queenwood	75	152	101	80	184	189	111	131	109	88	124	1,344
Riverlea	65	90	157	51	86	91	83	66	113	105	136	1,044
Rotokauri	135	119	270	45	127	115	65	119	179	145	180	1,500
Rototuna	38	91	97	81	217	138	76	44	103	117	111	1,113
Silverdale	96	138	183	97	171	154	118	110	164	109	132	1,472
Swarbrick	96	265	326	112	185	209	177	135	344	256	361	2,467
Sylvester	140	307	338	73	544	153	44	194	298	369	267	2,726
Te Rapa	10	11	23	6	21	9	6	10	24	19	22	162
Temple View	39	46	34	22	68	30	24	55	65	63	43	490
University	243	348	202	80	106	128	184	411	318	120	223	2,361
Total	5,243	8,294	7,646	2,955	5,292	5,823	5,566	7,502	11,316	5,242	7,206	72,085

Source: Development Economics, Target Market Pro

2041 Households	Empty Nesters & Retirees			Younger Singles & Couples				Traditional & Non-Traditional Families				Total
CAU	Small City Success	Home Town Nesters	Kiwi Seniors	Small City Achiev-ers	Blue Collar Kiwiana	Young Battlers	No Nest Small City	Affluent Families	Home-town Lifestyle	Family First	Small City Solo Mums	
Bader	263	289	287	88	137	136	224	393	416	71	143	2,447
Beerescourt	228	155	229	71	44	75	133	227	242	42	70	1,517
Bryant	145	253	82	153	66	171	287	539	622	97	190	2,605
Brymer	98	116	78	46	29	39	67	204	169	27	55	928
Burbush	15	14	6	6	3	6	13	30	22	2	6	125
Chartwell	116	185	64	44	70	69	98	202	222	47	104	1,220
Chedworth	130	192	109	57	66	111	145	271	416	98	105	1,700
Clarkin	120	134	139	58	54	98	83	147	166	80	99	1,178
Claudelands	80	180	60	65	51	135	106	187	286	68	102	1,320
Crawshaw	54	138	56	48	46	95	90	129	244	98	138	1,136
Dinsdale North	187	205	204	63	98	97	160	279	296	50	101	1,740
Dinsdale South	186	204	203	63	98	97	160	279	295	50	101	1,736
Enderley	281	309	307	94	146	146	239	420	444	76	152	2,613
Fairview Downs	116	201	183	57	75	115	147	140	254	125	177	1,590
Flagstaff	17	125	93	36	123	158	88	53	283	187	328	1,490
Frankton Junction	58	143	162	32	75	104	113	91	218	85	168	1,249
Glenview	112	302	85	108	69	181	251	342	525	117	156	2,249
Grandview	107	148	143	33	67	97	128	182	215	83	90	1,294
Hamilton Central	255	447	484	124	224	314	278	305	579	281	434	3,723
Hamilton East	218	230	271	96	108	167	153	197	270	111	179	2,000
Hamilton Lake	124	322	300	168	257	347	267	164	491	238	322	3,000
Hillcrest West	98	201	116	82	282	189	175	110	156	108	105	1,620
Horsham Downs	138	361	532	73	248	358	228	87	520	384	539	3,466
Huntington	216	234	141	175	172	293	172	216	316	97	218	2,250
Insoll	35	68	80	32	59	94	52	51	127	86	97	783
Maeroa	130	286	201	78	96	174	153	199	365	136	182	2,000
Melville	253	272	202	73	65	72	156	294	280	101	165	1,934
Nawton	173	246	242	80	87	93	164	269	343	106	155	1,959
Naylor	195	310	421	46	205	192	155	201	294	202	281	2,500
Peachgrove	120	321	408	32	302	204	187	67	367	460	492	2,960
Peacocke	594	1,258	879	370	435	701	480	497	1,379	650	757	8,000
Porritt	110	94	70	31	25	41	73	139	100	28	64	776
Pukete	45	96	67	82	208	136	99	38	62	55	72	960
Pukete West	39	74	138	33	60	69	52	46	119	85	136	850
Queenwood	81	164	110	83	190	195	114	140	116	94	133	1,420
Riverlea	68	95	165	53	89	95	86	69	118	110	142	1,091
Rotokauri	135	119	270	45	127	115	65	119	179	145	180	1,500
Rototuna	38	91	97	81	217	138	76	44	103	117	111	1,113
Silverdale	120	173	228	111	195	176	135	136	204	135	163	1,778
Swarbrick	120	331	408	133	219	248	211	160	408	303	427	2,968
Sylvester	140	307	338	73	544	153	44	194	298	369	267	2,726
Te Rapa	11	12	26	6	23	10	7	10	26	21	24	177
Temple View	46	54	40	24	75	33	26	61	72	70	48	550
University	279	399	231	93	124	150	216	463	358	135	251	2,700
Total	6,096	9,858	8,954	3,398	5,955	6,689	6,352	8,392	12,986	6,030	8,230	82,939

Source: Development Economics, Target Market Pro

9. APPENDIX 3: CAU DWELLING DEMAND FORECASTS BY TYPOLOGY

House Demand by Typology Medium	2011			2021			2031			2041			2051			2061		
CAU	Stand Alone	Terrace	Apartment	Stand Alone	Terrace	Apartment	Stand Alone	Terrace	Apartment	Stand Alone	Terrace	Apartment	Stand Alone	Terrace	Apartment	Stand Alone	Terrace	Apartment
Bader	1,180	220	10	1,440	270	10	1,710	330	20	2,010	400	20	2,250	450	20	2,530	500	30
Beerescourt	1,050	190	10	1,100	200	10	1,180	220	10	1,250	240	10	1,400	270	10	1,570	300	10
Bryant	1,850	250	10	1,940	280	20	2,080	310	20	2,210	340	20	2,480	380	20	2,780	430	30
Brymer	770	120	10	770	120	10	780	130	10	780	130	10	870	150	10	980	160	10
Burbush	70	10	0	80	10	0	110	20	0	110	20	0	120	20	0	140	30	0
Chartwell	800	140	10	870	150	10	940	170	10	1,010	190	10	1,130	210	10	1,270	240	10
Chedworth	1,130	170	10	1,230	200	10	1,330	220	10	1,420	250	10	1,590	280	10	1,790	320	10
Clarkin	880	170	10	900	180	10	940	190	10	960	200	10	1,080	220	10	1,210	250	10
Claudelands	900	150	10	970	170	10	1,030	180	10	1,100	200	10	1,230	220	10	1,380	250	10
Crawshaw	790	130	10	830	140	10	890	160	10	940	180	10	1,050	200	10	1,180	230	10
Dinsdale North	1,130	210	10	1,210	230	10	1,320	260	10	1,430	290	20	1,600	330	20	1,800	370	30
Dinsdale South	1,220	220	10	1,270	240	10	1,350	260	10	1,430	290	20	1,600	330	20	1,800	370	30
Enderley	1,310	240	10	1,570	290	20	1,840	360	20	2,150	430	20	2,410	480	20	2,710	540	30
Fairview Downs	950	190	10	1,050	210	10	1,170	250	10	1,290	280	10	1,450	310	10	1,620	350	10
Flagstaff	1,220	260	10	1,210	270	10	1,200	270	10	1,200	280	10	1,350	310	10	1,510	350	10
Frankton Junction	660	140	10	770	170	10	880	200	10	1,000	230	10	1,120	260	10	1,260	290	10
Glenview	1,600	250	10	1,660	270	20	1,780	300	20	1,880	330	20	2,110	370	20	2,370	420	30
Grandview	890	170	10	930	180	10	1,000	200	10	1,060	220	10	1,190	250	10	1,330	280	10
Hamilton Central	1,260	260	10	1,760	380	20	2,330	520	30	3,000	690	40	3,360	770	50	3,770	870	50
Hamilton East	1,200	250	10	1,340	280	10	1,480	320	20	1,620	360	20	1,820	400	20	2,040	450	30
Hamilton Lake	1,420	330	20	1,750	410	20	2,070	500	30	2,390	590	30	2,680	660	30	3,010	740	40
Hillcrest West	990	280	20	1,080	300	20	1,170	330	20	1,260	360	20	1,410	400	20	1,590	450	30
Horsham Downs	1,090	260	10	1,950	480	20	2,760	690	30	2,740	710	30	3,070	800	30	3,450	900	40
Huntington	1,610	320	20	1,840	390	20	1,830	400	20	1,820	410	20	2,040	460	20	2,290	520	30
Insoll	620	130	10	610	140	10	630	140	10	630	150	10	710	170	10	790	190	10
Maeroa	1,230	240	10	1,370	270	10	1,500	310	20	1,630	350	20	1,830	390	20	2,050	440	30
Melville	1,360	230	10	1,420	260	10	1,520	280	10	1,600	300	20	1,790	340	20	2,010	380	30
Nawton	1,360	250	10	1,420	270	10	1,520	300	20	1,610	320	20	1,800	360	20	2,030	400	30
Naylor	1,470	350	20	1,640	400	20	1,820	450	20	1,980	500	20	2,220	560	20	2,490	630	30
Peachgrove	1,100	260	10	1,460	360	20	1,860	470	20	2,330	620	30	2,610	700	30	2,930	780	40
Peacocke	220	40	0	380	80	0	2,980	650	30	6,470	1,460	80	7,250	1,640	90	8,140	1,840	100
Porritt	510	80	0	550	90	10	600	100	10	650	120	10	730	130	10	820	150	10
Pukete	640	200	10	660	210	10	700	220	10	730	240	10	820	270	10	920	300	10
Pukete West	560	130	10	590	140	10	640	150	10	680	170	10	760	190	10	860	210	10
Queenwood	950	240	10	1,000	260	20	1,060	280	20	1,110	300	20	1,240	340	20	1,400	380	30
Riverlea	770	180	10	790	190	10	830	210	10	870	220	10	980	250	10	1,090	280	10
Rotokauri	210	50	0	1,050	250	10	1,200	290	10	1,190	300	20	1,330	340	20	1,500	380	30
Rototuna	870	240	10	860	250	10	860	260	10	850	260	20	950	290	20	1,070	330	30
Silverdale	760	200	10	960	240	10	1,170	300	20	1,410	360	20	1,580	400	20	1,770	450	30
Swarbrick	1,320	300	20	1,640	380	20	1,980	470	20	2,360	590	30	2,650	660	30	2,970	740	40
Sylvester	530	180	10	1,870	520	30	2,120	600	30	2,110	620	30	2,370	700	30	2,650	780	40
Te Rapa	110	30	0	120	30	0	130	30	0	140	40	0	160	40	0	180	50	0
Temple View	300	70	0	350	80	0	400	90	10	440	100	10	490	110	10	550	130	10
University	1,420	250	10	1,690	310	20	1,960	370	20	2,230	430	20	2,500	480	20	2,810	540	30
	42,130	8,080	470	49,920	10,510	560	58,650	12,760	680	67,080	15,060	800	75,200	16,900	900	84,400	19,000	1,000

Source: Development Economics, Target Market Pro

Note: These forecasts show the origin of demand rather than the ultimate destination for that demand. For example, a household in a suburban location may have a preference for an apartment, which is shown in the tables, however the ultimate location where that demand is realised will depend on both market variables and the rules in the District Plan (i.e. the demand for the apartment may ultimately be near the lake, as this offers good amenity and has the appropriate zoning. In general demand should be considered in catchments made up of 2-5 suburbs. Other factors, such supply of new land or minimum lot sizes, will dictate how much of that demand will be realised locally in terms of new houses.

House Demand by Typology Low	2011			2021			2031			2041			2051			2061		
CAU	Stand Alone	Terrace	Apartment	Stand Alone	Terrace	Apartment	Stand Alone	Terrace	Apartment	Stand Alone	Terrace	Apartment	Stand Alone	Terrace	Apartment	Stand Alone	Terrace	Apartment
Bader	1,170	220	10	1,370	260	10	1,570	310	20	1,790	360	20	1,940	390	20	2,070	410	20
Beerescourt	1,040	190	10	1,050	190	10	1,080	200	10	1,110	220	10	1,210	230	10	1,290	250	10
Bryant	1,830	250	10	1,850	270	20	1,910	290	20	1,970	300	20	2,130	330	20	2,280	350	20
Brymer	760	120	10	730	110	10	720	120	10	700	120	10	750	130	10	800	130	10
Burbush	70	10	0	80	10	0	100	20	0	100	20	0	110	20	0	110	20	0
Chartwell	790	140	10	830	140	10	860	160	10	900	170	10	980	180	10	1,040	200	10
Chedworth	1,120	170	10	1,170	190	10	1,220	200	10	1,270	220	10	1,370	240	10	1,460	260	10
Clarkin	870	170	10	860	170	10	860	180	10	860	180	10	930	190	10	990	210	10
Claudelands	890	150	10	920	160	10	950	170	10	980	180	10	1,060	190	10	1,130	210	10
Crawshaw	780	130	10	790	130	10	820	150	10	840	160	10	910	170	10	970	190	10
Dinsdale North	1,120	210	10	1,150	220	10	1,210	240	10	1,270	260	20	1,380	280	20	1,480	300	20
Dinsdale South	1,210	220	10	1,210	230	10	1,240	240	10	1,270	260	20	1,380	280	20	1,480	300	20
Enderley	1,300	240	10	1,490	280	20	1,690	330	20	1,920	390	20	2,080	420	20	2,220	450	20
Fairview Downs	940	190	10	1,000	200	10	1,080	230	10	1,150	250	10	1,250	270	10	1,330	290	10
Flagstaff	1,210	260	10	1,150	260	10	1,100	250	10	1,070	250	10	1,160	270	10	1,240	290	10
Frankton Junction	650	140	10	730	160	10	810	180	10	890	210	10	970	220	10	1,030	240	10
Glenview	1,580	250	10	1,680	260	20	1,640	280	20	1,680	300	20	1,820	320	20	1,940	340	20
Grandview	880	170	10	880	170	10	920	180	10	940	200	10	1,020	210	10	1,090	230	10
Hamilton Central	1,250	260	10	1,670	360	20	2,140	480	30	2,670	620	40	2,900	670	40	3,090	710	40
Hamilton East	1,190	250	10	1,280	270	10	1,360	300	20	1,440	320	20	1,560	350	20	1,670	370	20
Hamilton Lake	1,410	330	20	1,670	390	20	1,900	460	30	2,130	530	30	2,310	570	30	2,470	610	30
Hillcrest West	980	280	20	1,030	290	20	1,080	310	20	1,120	320	20	1,220	350	20	1,300	370	20
Horsham Downs	1,080	260	10	1,860	460	20	2,540	640	30	2,440	640	30	2,650	690	30	2,830	740	30
Huntington	1,490	320	20	1,750	370	20	1,680	370	20	1,620	370	20	1,760	400	20	1,880	420	20
Insoll	610	130	10	580	130	10	580	130	10	560	130	10	610	150	10	650	160	10
Maeroa	1,220	240	10	1,300	260	10	1,380	290	20	1,450	310	20	1,570	340	20	1,680	360	20
Melville	1,350	230	10	1,350	240	10	1,400	260	10	1,430	270	20	1,550	290	20	1,650	310	20
Newton	1,350	250	10	1,350	260	10	1,400	280	20	1,440	290	20	1,560	310	20	1,660	330	20
Naylor	1,450	350	20	1,560	380	20	1,670	420	20	1,770	450	20	1,910	480	20	2,040	520	20
Peachgrove	1,090	260	10	1,390	340	20	1,710	430	20	2,080	560	30	2,250	600	30	2,400	640	30
Peacocke	220	40	0	360	80	0	2,740	600	30	5,770	1,310	70	6,250	1,420	80	6,670	1,510	80
Porritt	500	80	0	520	90	10	550	90	10	580	110	10	630	120	10	670	120	10
Pukete	630	200	10	630	200	10	640	200	10	650	220	10	710	230	10	750	250	10
Pukete West	550	130	10	560	130	10	590	140	10	610	150	10	660	160	10	700	180	10
Queenwood	940	240	10	950	250	20	970	260	20	990	270	20	1,070	290	20	1,150	310	20
Riverlea	760	180	10	750	180	10	760	190	10	780	200	10	840	210	10	900	230	10
Rotokauri	210	50	0	1,000	240	10	1,100	270	10	1,060	270	20	1,150	290	20	1,230	310	20
Rotoluna	860	240	10	820	240	10	790	240	10	760	230	20	820	250	20	880	270	20
Silverdale	750	200	10	910	230	10	1,080	280	20	1,260	320	20	1,360	350	20	1,450	370	20
Swarbrick	1,310	300	20	1,560	360	20	1,820	430	20	2,100	530	30	2,280	570	30	2,430	610	30
Sylvester	520	180	10	1,780	490	30	1,950	550	30	1,880	560	30	2,040	600	30	2,180	640	30
Te Rapa	110	30	0	110	30	0	120	30	0	120	40	0	140	40	0	140	40	0
Temple View	300	70	0	330	80	0	370	80	10	390	90	10	430	100	10	450	100	10
University	1,410	250	10	1,610	290	20	1,800	340	20	1,990	390	20	2,150	420	20	2,300	450	20
	41,700	8,500	500	47,500	10,000	600	53,900	11,800	600	59,800	13,500	700	64,800	14,600	800	69,200	15,600	800

Source: Development Economics, Target Market Pro

House Demand by Typology Medium EDA	2011			2021			2031			2041			2051			2061		
CAU	Stand Alone	Terrace	Apartment	Stand Alone	Terrace	Apartment	Stand Alone	Terrace	Apartment	Stand Alone	Terrace	Apartment	Stand Alone	Terrace	Apartment	Stand Alone	Terrace	Apartment
Bader	1,190	220	10	1,460	270	10	1,730	340	20	2,030	410	20	2,280	450	20	2,520	500	30
Beerescourt	1,060	190	10	1,110	200	10	1,190	220	10	1,270	240	10	1,420	270	10	1,570	300	10
Bryant	1,870	250	10	1,960	280	20	2,100	320	20	2,240	350	20	2,510	390	20	2,770	430	30
Brymer	780	120	10	780	120	10	790	130	10	790	130	10	880	150	10	980	160	10
Burbush	70	10	0	80	10	0	110	20	0	110	20	0	120	20	0	140	30	0
Chartwell	810	140	10	880	150	10	950	170	10	1,020	190	10	1,150	220	10	1,270	240	10
Chedworth	1,140	170	10	1,240	200	10	1,340	220	10	1,440	250	10	1,610	280	10	1,780	310	10
Clarkin	890	170	10	910	180	10	950	190	10	970	200	10	1,090	230	10	1,210	250	10
Claudelands	910	150	10	980	170	10	1,040	180	10	1,110	200	10	1,250	230	10	1,380	250	10
Crawshaw	800	130	10	840	140	10	900	160	10	950	180	10	1,070	200	10	1,180	230	10
Dinsdale North	1,140	210	10	1,220	230	10	1,330	260	10	1,450	290	20	1,620	330	20	1,790	360	30
Dinsdale South	1,230	220	10	1,280	240	10	1,360	260	10	1,450	290	20	1,620	330	20	1,790	360	30
Enderley	1,320	240	10	1,590	290	20	1,860	370	20	2,180	440	20	2,440	490	20	2,700	540	30
Fairview Downs	960	190	10	1,060	210	10	1,180	250	10	1,310	280	10	1,460	320	10	1,620	350	10
Flagstaff	1,230	260	10	1,220	270	10	1,210	280	10	1,210	280	10	1,360	320	10	1,510	350	10
Frankton Junction	670	140	10	780	170	10	890	200	10	1,010	230	10	1,130	260	10	1,260	290	10
Glenview	1,620	250	10	1,680	270	20	1,800	310	20	1,900	340	20	2,130	370	20	2,360	410	30
Grandview	900	170	10	940	180	10	1,010	200	10	1,070	220	10	1,200	250	10	1,330	280	10
Hamilton Central	1,270	260	10	1,780	380	20	2,360	530	30	3,040	700	40	3,400	780	50	3,770	870	50
Hamilton East	1,210	250	10	1,360	280	10	1,500	330	20	1,640	370	20	1,840	410	20	2,030	450	30
Hamilton Lake	1,440	330	20	1,770	410	20	2,090	510	30	2,420	600	30	2,710	670	30	3,000	740	40
Hillcrest West	1,000	280	20	1,090	300	20	1,180	340	20	1,280	370	20	1,430	410	20	1,580	450	30
Horsham Downs	1,100	260	10	1,970	480	20	2,790	700	30	2,770	720	30	3,110	810	30	3,440	890	40
Huntington	1,530	320	20	1,860	390	20	1,850	410	20	1,840	420	20	2,060	470	20	2,280	510	30
Insoll	630	130	10	620	140	10	640	140	10	640	150	10	710	170	10	790	190	10
Maeroa	1,240	240	10	1,390	270	10	1,520	320	20	1,650	360	20	1,850	400	20	2,050	440	30
Melville	1,380	230	10	1,440	250	10	1,540	290	10	1,620	300	20	1,820	340	20	2,010	380	30
Nawton	1,380	250	10	1,440	270	10	1,540	310	20	1,630	330	20	1,830	360	20	2,020	400	30
Naylor	1,490	350	20	1,660	400	20	1,840	460	20	2,000	510	20	2,250	570	20	2,490	630	30
Peachgrove	1,110	260	10	1,480	360	20	1,880	480	20	2,360	630	30	2,640	700	30	2,920	780	40
Peacocke	220	40	0	380	80	0	3,010	660	30	6,550	1,480	80	7,340	1,660	90	8,120	1,830	100
Porritt	520	80	0	560	90	10	610	100	10	660	120	10	740	140	10	820	150	10
Pukete	650	200	10	670	210	10	710	220	10	740	240	10	830	270	10	920	300	10
Pukete West	570	130	10	600	140	10	650	150	10	690	170	10	770	190	10	850	210	10
Queenwood	960	240	10	1,010	260	20	1,070	290	20	1,120	300	20	1,260	340	20	1,390	380	30
Riverlea	780	180	10	800	190	10	840	210	10	880	220	10	990	250	10	1,090	280	10
Rotokauri	210	50	0	1,060	250	10	1,210	300	10	1,200	300	20	1,350	340	20	1,490	380	30
Rototuna	880	240	10	870	250	10	870	260	10	860	260	20	960	300	20	1,070	330	30
Silverdale	770	200	10	970	240	10	1,180	310	20	1,430	370	20	1,600	410	20	1,770	450	30
Swarbrick	1,330	300	20	1,660	380	20	2,000	480	20	2,390	600	30	2,680	670	30	2,960	740	40
Sylvester	640	180	10	1,890	520	30	2,140	610	30	2,140	630	30	2,390	700	30	2,650	780	40
Te Rapa	110	30	0	120	30	0	130	30	0	140	40	0	160	50	0	180	50	0
Temple View	300	70	0	360	80	0	400	90	10	450	100	10	500	110	10	550	130	10
University	1,440	250	10	1,710	310	20	1,980	380	20	2,260	440	20	2,530	490	20	2,800	540	30
	42,600	8,700	500	50,500	10,600	600	59,300	13,000	700	67,900	16,300	800	76,100	17,100	900	84,200	18,900	1,000

Source: Development Economics, Target Market Pro

URBAN ECONOMICS

5 OCTOBER 2018

AUTHOR ADAM THOMPSON

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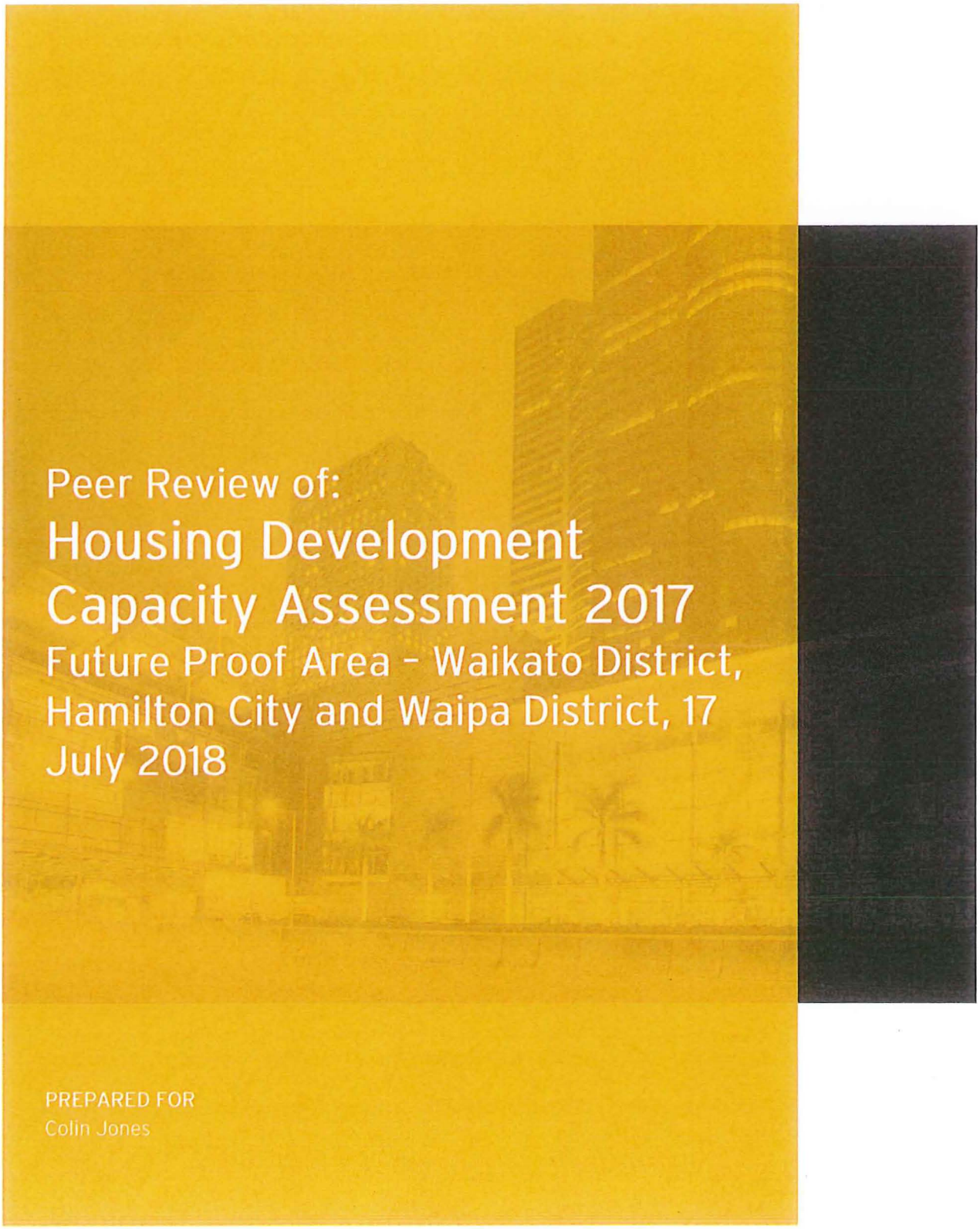

Peer Review of:
Housing Development Capacity Assessment 2017
Future Proof Area - Waikato District, Hamilton City and Waipa District, 17 July 2018

PREPARED FOR

Colin Jones

ABOUT US

OUR AREAS OF EXPERTISE

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Our work aims to bridge the gap between land-use planning and urban economics. Our focus is on the interaction between land markets, land-use regulations, and urban development. We have developed a range of methodologies using a quantitative approach to analyse urban spatial structure and audit land-use regulations.

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P: 09 963 8776

5b Crummer Road, Ponsonby, Auckland

adam@ue.co.nz

www.ue.co.nz

CONTENTS

1. Executive Summary

The peer review of the ME Consulting report on housing development capacity has found:

1. The GIS based estimates of 'planned enabled' capacity appear to be completed to a high standard and to be accurate.

2. The estimates of housing demand are in line with Statistics NZ forecasts and are a sound basis for estimating the quantity of houses demanded.

3. No assessment is undertaken of the price of houses demanded. The price of houses is part of demand and is required to be considered under the National Policy Statement - Urban Development Capacity ("NPS-UDC").

4. The Commercial Feasibility Capacity Model ("CFC Model") operates at the parcel level and applies a standard 'developers feasibility study' approach. This is considered best practise.

5. The CFC Model has several potential omissions or errors in the data:

    a. The purchase price of a property for infill development (a large cost) is derived from the Rating Database. This is estimated by ME Consulting to be 10-20% below the actual market value, and would, for example, add over $100,000 to the cost of purchasing a development site. This would have a material impact on the CFC Model results.

    b. By contrast, the sale prices of the newly developed houses (revenue) is derived from recent sales data, which is significantly higher than the 'purchase price' data in Point a above.

    c. No allowance has been made for the construction of a driveway, which can be $10,000 - $30,000. This would have a material impact on the CFC Model results.

6. **The CFC Model is based on the theoretical proposition that house prices will inevitably double in real terms every 30 years[1] due to increasing wages.** This is incorrect as many cities have high wages and low housing costs. This theoretical proposition has an overwhelming impact on the CFC Model results. For example, for Hamilton City, the model estimates that if house prices double over the 30-year period to 2046, there will be 84,000 new commercially feasible dwellings, which would be sufficient to meet all demand. However, by contrast, if house prices stay as they are, there will be only 7,000 commercially feasible dwellings which would not be sufficient to meet all demand. Therefore, in order for affordable housing to be built in the future, and for the Future Proof Area to meet the requirements of the NPS-UDC, house prices must somewhat ironically, double in real terms over the next 30 years according to the CFC model. This presents a high hurdle because the NPS-UDC has the central objective of enabling affordable house

[1] In nominal terms this equates to a doubling every 10-15 years.

prices.

> *"This national policy statement aims to ensure that planning decisions enable the supply of housing needed to meet demand. This will contribute to minimising artificially inflated house prices at all levels and contribute to housing affordability overall. Currently, artificially inflated house prices drive inequality, increase the fiscal burden of housing-related government subsidies, and pose a risk to the national economy." (page 3-4, NPS-UDC)*

7. The CFC Model includes an adjustment that dwelling prices will increase in real (inflation adjusted) terms from $670,000 in 2017, to $820,000 in 2027, to $990,000 in 2037 and to $1.21 million by 2047[2].

8. The report asserts that higher land prices lead to the provision of more intensive and affordable infill housing. No evidence is provided to support this apparently contradictory conclusion.

9. The theoretical proposition that house prices will inevitably double in real terms every 30 years due to city growth is not corroborated by the urban economic literature. This brings into question the economic basis of the CFC Model and its results.

10. The report assumes that all greenfield land is equally feasible for development. This is incorrect as some sites will have relatively high lot development and reserve contribution costs, and relatively low lot prices.

2. Introduction

This report provides a peer review of Hamilton City Council's assessment of housing development capacity, prepared by ME Consulting. The following ME Consulting report ("ME report") is reviewed:

- Housing Development Capacity Assessment 2017: 17 July 2018, ME Consulting.

In addition, the following supporting ME Consulting reports have been reviewed:

- Housing Development Capacity Assessment 2017: Technical Specifications Report, 20 August 2018, ME Consulting.
- Housing Development Capacity Assessment 2017: Technical Specifications Report - GIS, 21 August 2018, ME Consulting.
- NPS-UDC Current Feasibility Provisions, Discussion Paper, July 2018, ME Consulting.

2.1. About the author

Adam Thompson has 16 years' experience as an urban economist and property market analyst.

[2] This example is for Hamilton City.

Adam was the primary advocate for and developer of the Auckland Council Development Capacity ("ACDC") model.

Adam presented 1,200 pages of evidence 40 briefs of evidence to the IHP for the Auckland Unitary Plan ("AUP") review. The IHP preferred his evidence on several key urban economic matters, most notably:

- the need for more infill housing potential,
- the need for more greenfield land and a flexible urban boundary,
- the need for flexible provisions for commercial distribution when centres have insufficient capacity, and
- the ability to subdivide rural lifestyle lots when native vegetation is planted.

3. Housing Demand

The estimates of housing demand are in line with Statistics NZ forecasts and are a sound basis for estimating the quantity of houses demanded.

The report does not provide any assessment of the price of houses demanded by residents. This is equally as important as the quantity of houses demanded because residents have different incomes and different housing preferences. Understanding demand not only in terms of quantity but also in terms of price is a requirement under the NPS-UDC, as follows:

> *Objective Group A – Outcomes for planning decisions*
>
> *OA2: Urban environments that have* ***sufficient opportunities for the development of housing and business land to meet demand****, and which provide choices that will meet the needs of people and communities and future generations for a range of dwelling types and locations, working environments and places to locate businesses.*
>
> *Demand means:*
>
> *In relation to housing, the demand for dwellings in an urban environment in the short, medium and long-term, including:*
>
> *a) the total number of dwellings required to meet projected household growth and projected visitor accommodation growth;*
>
> *b) demand for different types of dwellings;*
>
> *c) the demand for different locations within the urban environment; and*
>
> *d) the demand for* ***different price points*** *recognising that people will trade off (b), (c) and (d) to meet their own needs and preferences.*
>
> *(NPS-UDC, emphasis added)*

It is not possible to draw conclusions about whether a proposed housing land policy is economically efficient without considering the price of dwellings that are enabled. As outlined in a following section of this report, the current average price of a new dwelling in Hamilton City, for example, that is estimated by the CFC Model is $670,000 and this is forecast to increase to $820,000 in real terms by 2027. Such a rapid increase in dwelling prices cannot be assumed to reflect demand as consumers demand houses at the lowest possible price, not at the price that they are 'able to pay'. In other words, just because people have an increase in wages does not mean that they want to or should pay a higher price for the same house.

4. Theoretical Propositions for CFC Model

4.1. Report Theoretical Proposition 1: It is Inevitable That House Prices Will Double in Real Terms every 30 Years

The report asserts that the price of housing is inextricably linked to the rate of City growth.

> *"Importantly, the model has a time component which enables it to estimate the commercial feasibility of capacity through time.* ***Population and other demand growth*** *__will affect prices through time__,* *which affects the feasibility of different developments through time.*
>
> ...
>
> *The annual average rate of* ***sales*** *__price growth__* ***has been set [within the CFC Model] at 2.0 per cent per annum*** *for all dwellings within the Waikato District and Hamilton City.*
>
> ...
>
> *__Growth in prices__ (together with growth in costs) have been applied to allow redevelopment, further intensification and outward greenfield expansion to occur through time in the Model."*
> *(page 29-30 Technical Specifications Report, emphasis added)*

> *It allows for the core economic processes observed and studied to date to continue to have effect, in a manner generally consistent with the scale and timing of growth in an economy. Accordingly,* ***__there is no requirement to assume__ that economic processes evident to date [i.e. house price growth] will no longer occur, or that observed relationships within the economy which affect land markets directly and indirectly will no longer have those effects.***
> *(page 5, NPS-UDC Current Feasibility Provisions Discussion Paper, emphasis added)*

> *Values, and associated development feasibility, change progressively over time and by location as cities grow, in a generally predictable manner. For the city as a whole,* ***__land values grow as the city grows__, and generally increase in real terms*** *(ie ahead of inflation).*
>
> ...
>
> *The common pattern is for* ***city-wide [land or property] value gain*** *to be consistent with overall growth...*
> *(page 7, NPS-UDC Current Feasibility Provisions Discussion Paper, emphasis added)*

> *However, a **key driver of...urban growth per se is the progressive increase in property values,** especially land values, over time.*
>
> ...
>
> ***Growth in land values** is thus an important driver of urban intensification and outward expansion. Real increases in property values, especially land, occur with urban growth, and such increase ahead of real costs progressively enhances the feasibility of new development and intensification.*
> *(page 25, NPS-UDC Current Feasibility Provisions Discussion Paper, emphasis added)*

The proposition is disproved by the fact that many large and fast growing cities have low housing prices. It is therefore not inevitable that a fast growing city will have increasing housing costs.

At a more technical level, some cities may have higher priced housing in some locations, such as near the CBD, however they are able to build lower cost housing at the urban periphery[3].

The implications of the theoretical proposition that house prices will inevitably increase are significant. The report asserts that house prices will, in Hamilton for example, inevitably increase at a rate of 2% per annum, and this is built directly into the CFC Model. The results of the CFC Model are therefore that the average price of a new dwelling, in Hamilton City for example, will increase in real (inflation adjusted) terms from $670,000 in 2017 to $820,000 million by 2027, to $990,000 by 2037 and to $1.21 million by 2047.

Such an outcome is however not a necessary condition for a city such as Hamilton, rather could only be attributed directly to residential land use policy. A rapid rise in house prices, as estimated by the CFC Model, would present severe adverse social and economic costs for the community, and will likely result in overcrowding, financial stress and a significant migration of the younger generation from the City. More generally, the theoretical proposition that underpins the CFC Model is antithetical to the NPS-UDC and raises the question of whether the Future Proof Area has complied with provisions of the NPS-UDC.

What do some of the worlds most renowned Urban Economists say about wages and house prices?

Professor Alan W Evans, FAcSS. University of Reading

> *"...the difficulty in determining the exact effects of growth controls has probably been eased over the last 20 years or so as an increasing number of cities, particularly in California, have chosen to adopt forms of growth control. The higher the proportion of an area that is subject to growth controls, the greater is likely to be the effect on prices of the constraint on the supply of land and housing....".*

Edward Glaeser, Fred and Eleanor Glimp Professor of Economics at Harvard University

> *"Over the past 30 years, eastern Massachusetts has seen a remarkable combination of rising home*

[3] The 'marginal cost' of a new house is at or near to the 'fundamental cost of production' and therefore the market is economically efficient.

prices and declining supply of new homes. The reductions in new supply don't appear to reflect a real lack of land, but instead reflect a response to man-made restrictions on development."

"Over the past 20 years, the fastest growing regions have not been those with the highest income or the most attractive climates. Flexible housing supply seems to be the key determinant of regional growth."

Paul Cheshire, Professor Emeritus of Economic Geography, LSE

"The process by which our planning system decides how much land to allocate for development – apart from being hedged around by Greenbelt boundaries – systematically undersupplies land. This is because it works on the basis of projected household numbers, not projected demand, so ignores the strong income elasticity of demand both for space in houses and for garden space. Moreover, because it supplies a fixed area determined by assumed densities, it undermines competition in land markets. Since the area of land available for potential development is small and known (as well as systematically being less than market demand) competition between potential sellers is much diminished."

4.2. Report Theoretical Proposition 2: Higher Land Prices Lead to Affordable Infill Houses

The second theoretical proposition is that high land prices lead to affordable infill houses.

A further key point is that intensification also enhances affordability, despite the apparent conflict with high land values. When more dwellings may be feasibly added to a parcel, then the land value per dwelling is reduced - a key part of improving housing affordability through delivering greater supply and at the same time limiting cost increases. To illustrate this, modelling in Auckland (undertaken for the AUP hearings) showed that intensification saw the land value component drop to 15-20% of new dwelling prices, whereas pre-redevelopment it had been around 70%.
(page 27, NPS-UDC Current Feasibility Provisions Discussion Paper, emphasis added)

Growth in land values is thus an important driver of urban intensification and outward expansion. Real increases in property values, especially land, occur with urban growth, and such increase ahead of real costs progressively enhances the feasibility of new development and intensification. As experience overseas has shown, commonly ***it is not until urban land values are sufficiently high*** *that the more intensive options like apartments and terrace houses become feasible.*
(page 29-30, Technical Specifications Report, emphasis added)

The CFC Model includes 2% annual price growth, so for example in Hamilton City, the average dwelling price will increase in real (inflation adjusted) terms from $670,000 in 2017 to $820,000 million by 2027, to $990,000 by 2037 and to $1.21 million by 2047.

The report's theoretical proposition, or hypothesis, that an increase in house prices will enable additional affordable houses, is almost certainly incorrect. However, the CFC Model does

estimate the number of new dwellings by type and price that can be built at parcel level. The model's results can therefore be used to prove or disprove the hypothesis. The report does not however present any estimates of the price profile of dwellings that would potentially be built under the various plans.

It is worth noting that the Auckland Unitary Plan, implemented in 2016, supports infill development. The Auckland Council's consulting economists (ME Consulting) advised that more affordable infill housing would be built, also on the premise that increasing prices would result in more affordable houses. However this has not occurred. The Auckland Council has recently completed a report on the commercial feasibility of new housing under the AUP, as part of the requirements of the NPS-UDC. The report concludes:

> *"The enabled feasible capacity for dwelling supply, as modelled for the 2016 draft Unitary Plan recommended by the Independent Hearings Panel, was for approximately 422,000 - being 270,000 (modelled) in brownfield existing urban areas and 130,000 (assumed feasible) in future urban areas, with the remainder being potential Housing NZ developments and future dwelling growth in rural-zoned areas.* ***The new modelling shows, principally due to rising construction costs and flat to declining sales prices, that the brownfield enabled feasible capacity of 270,000 has since reduced to 140,000;*** *and that the future urban feasible enabled capacity has changed slightly as it is now modelled, from 130,000 to 146,000 dwellings."*
>
> (Planning Committee, 28 November 2017, National Policy Statement on Urban Development Capacity initial assessment results, Item 14, National Policy Statement on Urban Development Capacity initial assessment results, page 5, emphasis added).

The most notable conclusion is that the average price of a new dwelling under the AUP is estimated to be $1.5 million[4], indicating that the average price is expected to continue to increase towards $1.5 million over the next few years.

It is also worth noting that with regard to the distribution of terrace infill houses in Auckland, since the AUP was made operative:

- The majority of terrace houses completed in 2017 (83%) were in greenfield locations rather than urban infill locations, and
- The majority of small-medium scale infill development has been stand-alone rather than terrace houses.

This is contrary to the hypothesis put forward in the report and raises the very real prospect that the Future Proof Area will see very little affordable housing able to be built under the recommended land use settings.

[4] (Planning Committee, 28 November 2017, National Policy Statement on Urban Development Capacity initial assessment results, Item 14, National Policy Statement on Urban Development Capacity initial assessment results, page 10).

5. Commercially Feasible Dwellings

The CFC Model operates at the parcel level and applies a standard 'developers feasibility study' approach. This is considered best practise.

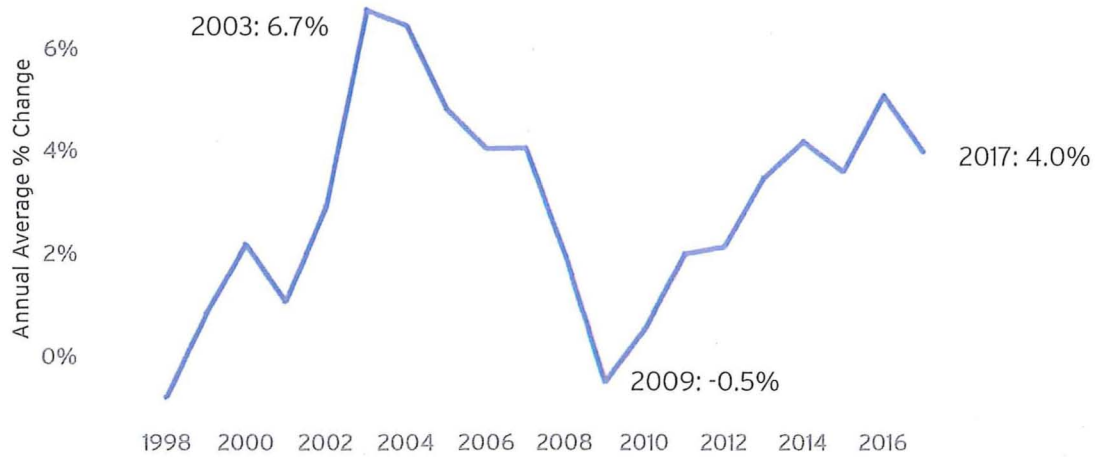
The CFC Model has several potential omissions or errors in the data, as follows.

- The purchase price of an infill development property (a large cost) is derived from the Rating Database. This is estimated in the report to be 10-20% below the actual market value and would, for example, add over $100,000 to the cost of a small quarter acre infill site. This would have a material impact on the CFC Model results.
- By contrast, the sale prices of the new development houses (revenue) is derived from recent sales data, which is significantly higher than the 'purchase price' data in the point above.
- No allowance has been made for the construction of a driveway, which can cost $10,000 - $30,000. This would have a material impact on the CFC Model results.
- It is implied that new dwellings are feasible if there is a profit of less than 20%, for example in Figure 40 of (page 70, Housing Development Capacity Assessment 2017). A 20% profit is generally the minimum profit a developer requires, and many developers require a profit of 25-30%.
- The CFC Model assumes that all greenfield land is equally feasible for development. This is incorrect as some sites will have relatively high lot development and reserve contribution costs, and relatively low lot prices. While it is likely that most greenfield land will be feasible for development, a high level assessment of whether there are large tracts of greenfield land that are not feasible should be undertaken.
- The model results do not consider the impact of an increase in the value of sites with development potential from changes to zoning. In Auckland, there was a significant increase in the value of infill development sites once the new zoning provisions and development rights were realised. This significantly reduces the price the new houses can be developed for, most notably, the 'raw land value' per new dwelling increases and this flows through into the final house price.
- No allowance for GST appears to have been made. Development profit of 20% is required after the net GST (receipts less payments) has been accounted for.
- The interest rates that are applied are not stated separately and appear to be too low (at 6-9% including real estate agent fees, implying a rate of 2-4% for a period of 12 months). Interest rates should be at 6-7% for a period of 12 months for the total project cost.
- Build cost price escalation has been included in the CFC Model at 1% per annum. However, the long run average is approximately 3%, as shown on the Figure below. A build cost price escalation of at least 3% should be included in the model. This would have

a substantial effect on the CFC Model results. It is worth noting that this was identified in the recently completed report on the commercial feasibility of new housing under the AUP as one of the main factors for a large reduction in feasible dwelling capacity:

> *The new modelling shows, principally due to rising construction costs and flat to declining sales prices, that the brownfield enabled feasible capacity of 270,000 has since reduced to 140,000; and that the future urban feasible enabled capacity has changed slightly as it is now modelled, from 130,000 to 146,000 dwellings."*
>
> (Planning Committee, 28 November 2017, National Policy Statement on Urban Development Capacity initial assessment results, Item 14, National Policy Statement on Urban Development Capacity initial assessment results, page 5, emphasis added).

Figure 1: Residential Building Cost Escalation



Source: Statistics NZ

It should also be noted that the CFC Model is essentially a property development model, and the required expertise for such a model is property development rather than economics. The model data, calculations and assumptions, and a ransom sample of 500-1,000 model outputs, should be made available and peer reviewed by the local property development sector. Such a peer review was undertaken for the development of the equivalent Auckland ACDC model and in particular members from the Property Council of New Zealand completed this task (pro bono).

6. Forecast Commercially Feasible Dwellings

The CFC Model is based on the theoretical proposition that house prices will inevitably continue to increase and this is the basis for the models estimated increase in the number of commercially feasible dwellings over time. In particular, the model estimates that the price of dwellings will increase at 2% per annum in real terms over the next 30 years.

> *Growth in prices (together with growth in costs) have been applied to allow redevelopment, further*

intensification and outward greenfield expansion to occur through time in the Model."

...

The annual average rate of ***sales price growth has been set [within the CFC Model] at 2.0 per cent per annum*** *for all dwellings within the Waikato District and Hamilton City.*

(page 29-30 Technical Specifications Report, emphasis added)

The impact that an increase in dwelling prices on the estimated future number of commercially feasible dwellings is significant. For example, for Hamilton City, the model estimates that if house prices double over the 30-year period to 2046, there will be 84,000 commercial feasible new dwellings, which would meet all demand[5]. However, by contrast, if house prices do not increase in real terms there will be only 7,000 commercially feasible dwellings, which would not meet all demand. This raises the question of whether 7,000 commercially feasible dwellings is sufficient to meet the requirements of the NPS-UDC.

Therefore, in order for future demand to be met, and for the Future Proof Area to meet the requirements of the NPS-UDC, house prices must double, in real terms, over the next 30 years. This presents an insurmountable hurdle because the NPS-UDC has the objective of lower house prices.

7. Recommendations

The following recommendations are made:

1. That the purchase price of an infill development site is adjusted in the CFC Model to reflect current sales values rather than Rating Database values.
2. That an adjustment in the CFC Model is made to account for the expected increase in the price of infill development sites in response to increased development potential.
3. That the cost for a driveway is included in the CFC Model.
4. That the interest rates for development are specified separately in the CFC Model and reflect current market rates, for the full development timeframe (12-24 months).
5. That the net GST payment is accounted for prior to estimating the profit of a development in the CFC Model.
6. That the building const escalation rate of 1% per annum is increased to the historical rate of 3% per annum in the CFC Model.
7. The CFC Model data, assumptions and calculations, and a random same of 1,000 model outputs, is provided to the development sector for peer review.
8. The inclusion of the assumption that house prices will increase at a rate of 2% per annum in the CFC model is evaluated in respect of whether it is consistent with the provisions of the

[5] Figure 37, page 67, Housing Development Capacity Assessment 2017.

NPS-UDC which has the contrary objective.

9. That a summary of the CFC Model results that show the prices of new dwellings, by type and location, is provided to demonstrate that there is sufficient affordable housing.

10. That demand is considered in terms of not only housing quantity, but housing price. A house price demand profile should be compiled.

11. It is confirmed whether a profit of less than 20% is considered to be commercially feasible for development.

12. A High level assessment of the commercial feasibility of greenfield land development is undertaken.

URBAN ECONOMICS

12.11.2018

To Colin Jones,

RE: Historic House Price Growth Assumption NPS-UDC Model

NPS-UDC Model

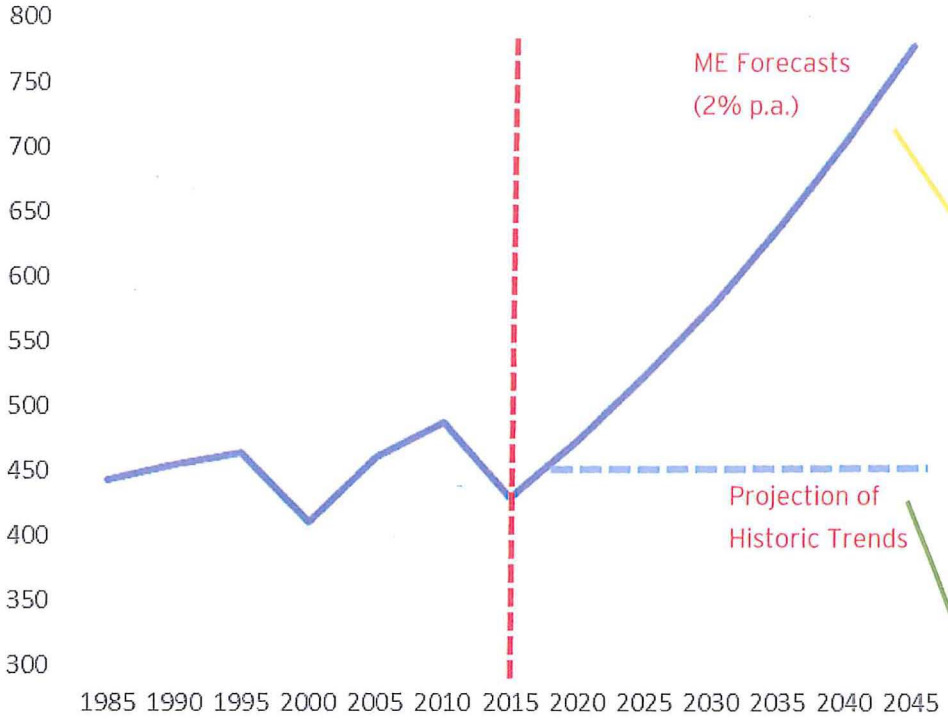
Fundamental assumption of model: house prices inevitably increase in real terms by 2% p.a.

- This assumption is not reflected in historical data.
- No evidence to support this assumption is provided.
- If house prices do not increase at 2% p.a. (real) commercially feasible units stay at 6,819 (as below). Under this scenario house prices stay at $450,000 p.a.
- If house prices do increase at 2% p.a. (real) commercially feasible units increase to 83,505 by 2045. Under this scenario real house prices double in 30 years to around $800,000.
- Note: the current average price is actually $670,000 (not $450,000) so at 2% real growth, prices will be $820,000 in 2027, to $990,000 in 2037 and to $1.21 million by 2047[1].

Other notes:

- No consideration of future house prices under these scenarios is presents in the reports.
- The increase in the value of infill development sites post rezoning has not been accounted for in the model. This reduced Auckland infill potential from 270,000 to 140,000.

Figure: Real (Inflation Adjusted) House Prices



Total feasible dwellings rapidly increase under this assumption over the next 30 years

Figure 2: Feasible Infill Dwellings Hamilton City (Estimated by ME Consulting)

Figure 37 - Infill (Incl. Redevelopment) Commercially Feasible Capacity in Hamilton City

Location	Plan Enabled Capacity Infill (incl. redevelopment)	Commercially Feasible Capacity Infill (incl. redevelopment) 2017	2021	2026	2046
1 (Te Rapa north)	-	-	-	-	-
2 (Te Rapa)	107	-	-	-	106
3 (Rotokauri)	28	-	-	-	-
4 (Nawton)	6,097	189	534	1,191	4,038
5 (Dinsdale)	6,617	193	550	1,285	4,795
6 (Temple View)	534	-	17	50	391
7 (Frankton)	777	64	119	191	496
8 (Melville)	7,332	39	468	1,264	5,475
9 (Peacocke)	904	87	121	150	199
10 (Silverdale)	4,794	206	460	1,322	3,831
11 (East/University)	4,152	370	607	1,114	2,595
12 (Ruakura)	-	-	-	-	-
13 (Fairview/Enderley)	6,023	137	416	902	4,510
14 (East/Claudelands)	4,809	350	746	782	4,063
15 (Chartwell)	5,850	333	1,073	1,796	4,587
16 (Rototuna)	12,463	1,233	3,027	4,216	9,695
17 (St Andrews)	5,712	118	585	1,647	4,695
18 (Beerescourt)	3,944	133	324	640	3,082
19 (Central City)	46,490	3,109	4,411	5,607	28,412
20 (Hamilton Lake)	3,244	331	485	832	2,579
TOTAL	**119,841**	**6,819**	**13,596**	**22,942**	**83,505**

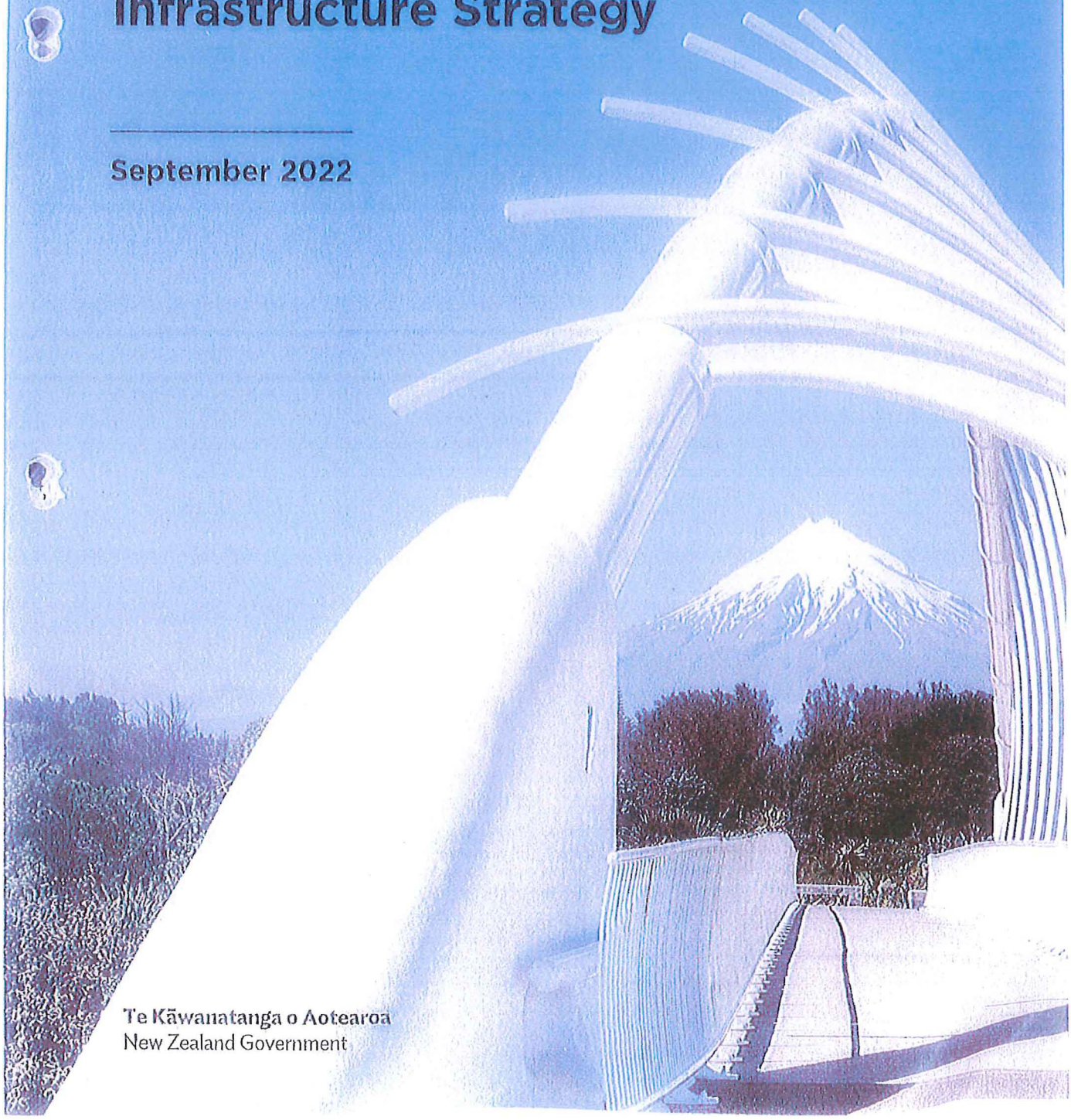
Total feasible dwellings are modest under this assumption over the next 30 years

Adam Thompson

1/11/2022

Government response to **Rautaki Hanganga o Aotearoa New Zealand Infrastructure Strategy**

September 2022



Te Kāwanatanga o Aotearoa
New Zealand Government

Recommendation 23	Increase housing development opportunities in areas with good access to infrastructure
Recommendation description	Improve development opportunities in areas already well served by infrastructure by: a Accelerating the implementation of the National Policy Statement on Urban Development and monitoring compliance, including requirements to upzone around rapid-transit and employment centres. b Enabling greater urban development, including requirements for minimum levels of mixed-use zoning and upzoning. c Prioritising provision of human necessities, such as housing, over preservation of subjective preferences (eg, heritage, character and amenity). d Using national direction to set binding targets for increased housing and business capacity commensurate with future growth expectations, guided by land prices in high-demand areas. e Adopting independent hearings panels to review district plan changes.
Government Position	Supported in principle
Discussion	The Government is committed to ensuring New Zealanders have safe, warm, dry and affordable homes. Improving housing development opportunities in areas already well served in infrastructure will ensure we deliver the greatest benefits to New Zealand's housing and urban land markets. The National Policy Statement on Urban Development (NPS-UD) and the Resource Management (Enabling Housing Supply and Other Matters) Amendment Act (Amendment Act) will significantly increase housing development opportunities in areas with good access to infrastructure. a and b The NPS-UD intensification policies explicitly require development to be enabled in areas that are in high demand with good accessibility, which will enable infrastructure to be used efficiently. The Amendment Act introduced a new streamlined planning process so tier 1 councils can implement the changes required by the NPS-UD from August 2023, at least a year earlier than expected. It also required tier 1 councils to make most residential areas medium density. The Medium Density Residential Standards are expected to work similarly to the NPS-UD by facilitating infill development and encouraging efficiencies. c The NPS-UD and the Amendment Act introduce robust evidential requirements for proposals and to restrict development through plans. This will ensure that the preservation of subjective preferences does not outweigh the need for development. d Housing and Business Capacity Assessments and housing bottom lines set binding targets for increased housing and business capacity commensurate with future growth expectations. e Independent hearings panels were required for intensification plan changes that were notified this year and will be required to hear submissions on Natural and Built Environment Act plans and plan changes in the future Resource Management system.
Status	Underway

Hamilton City Council. OIA 20351. 16.12.2020. Infrastructure spending

E

$000	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	Total
Waste Water	1,387	2,011	3,271	5,128	2,387	3,517	12,128	2,769	4,933	5,600	8,369	12,247	11,616	18,082	24,773	39,146	157,364
Waste Water Treatment Plant	410	1,220	534	2,793	6,111	6,553	3,219	3,901	3,799	3,244							31,784
Stormwater Network	1,219	1,737	3,695	1,969	1,052	1,259	1,259	728	1,587	882	2,277	2,155	9,243	2,982	8,516	9,935	50,495
Refuse	2,631	3,107	292	402	233	990	413	145	366	1,260	758	366	270	209	532	71	12,045
Water Supply	8,229	7,817	2,957	4,924	3,540	4,702	3,861	4,119	5,194	5,183	8,639	20,150	21,875	18,275	16,775	22,268	158,508
Water Treatment Station	7,719	13,340	2,426	1,455	1,297	978	1,372	1,653	2,258	1,528							34,026
	21,595	29,232	13,175	16,671	14,620	17,999	22,252	13,315	18,137	17,697	20,043	34,918	43,004	39,548	50,596	71,420	444,222
Roads and Traffic Carriageway	11,117	17,797	11,782	23,244	21,223	22,623	35,975	42,112	36,763	26,661	20,050	18,383	23,358	30,360	61,487	81,357	484,292
Traffic Services/Street Lighting	1,773	1,465	4,185	3,621	1,589	1,434	1,580	1,856									17,503
Cycleways Verges	1,180	1,157	1,199	1,361	1,427	1,515	1,654	1,540									11,033
Parking	283	20	16	4	18	126	488	10	85	98		276	125	870	288		2,707
	14,353	20,439	17,182	28,230	24,257	25,698	39,697	45,518	36,848	26,759	20,050	18,659	23,483	31,230	61,775	81,357	515,535
Total Infrastructure	35,948	49,671	30,357	44,901	38,877	43,697	61,949	58,833	54,985	44,456	40,093	53,577	66,487	70,778	112,371	152,777	959,757

E 1

Colin Jones

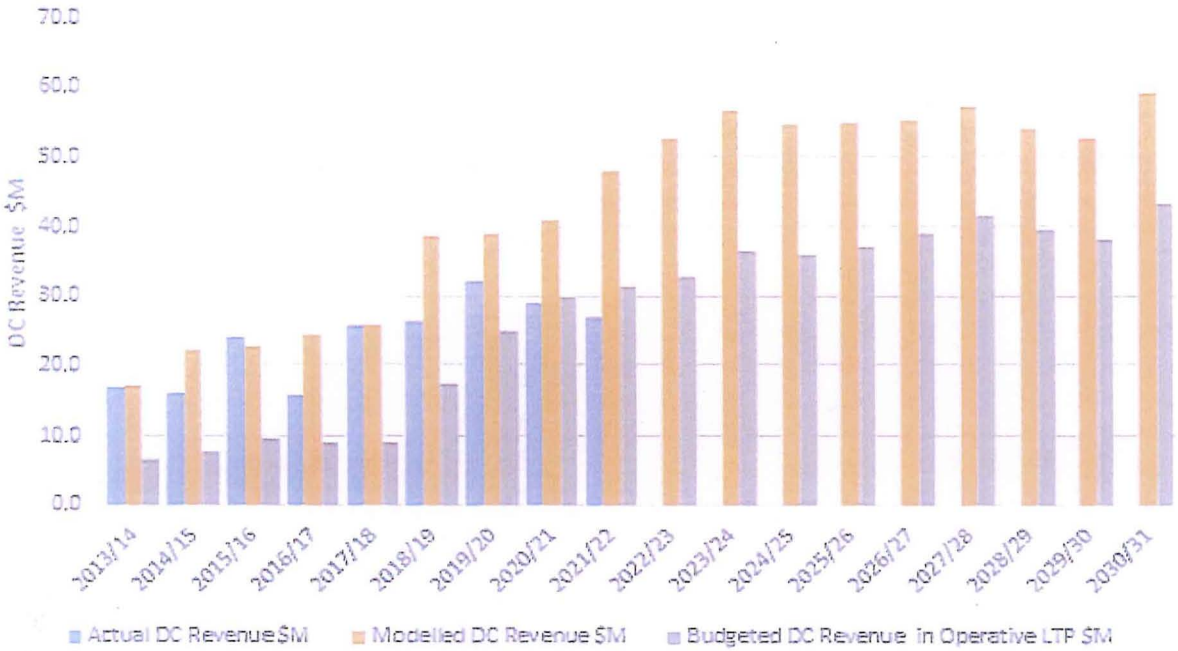
From: Mitchelmores <mitchelmores@xtra.co.nz>
Sent: Tuesday, 7 February 2023 2:13 pm
To: Colin Jones
Subject: DC Revenue History - Is this what you want

Fin Year	Total DC Revenue $M		
	Actual	Model1	Budget2 $M
2013/14	16.9	17.3	6.4
2014/15	16.1	22.3	7.6
2015/16	24.2	22.9	9.5
2016/17	15.8	24.6	9.0
2017/18	25.8	25.8	9.1
2018/19	26.4	38.9	17.5
2019/20	32.2	39.1	25.1
2020/21	28.9	40.9	29.9
2021/22	27.1	48.1	31.6
2022/23		52.9	32.8
2023/24		56.8	36.6
2024/25		54.8	36.1
2025/26		55.0	37.2
2026/27		55.3	39.0
2027/28		57.4	41.5
2028/29		54.3	39.5
2029/30		52.9	38.3
2030/31		59.2	43.2
Total	**213.5**	**778.4**	**489.9**

Notes

Model DC Revenue refers to revenue from the Operative DC model for the financial year

Budget DC Revenue refers to projected revenue in the Operative LTP



F

COMMERCIAL & INDUSTRIAL CONSULTANTS LTD
Licensed Real Estate Agent (REAA 2008)

21 September 2021

To the Chair, Mayors, and CEO of Waikato Regional Council, Hamilton City Council, Waikato District Council, Waipa District Council.

Re: Formal complaint against Future Proof and your councils as Future Proof Partners.

Our request: That you investigate this formal complaint, independently, to ensure you, and your councils, are complying with your legal obligations.

The Ombudsman office has suggested that we lay this compliant, so you have an opportunity to respond.

Our evidence. Precis (below) is some correspondence obtained through the Official Information Requests (OIA) and outlines and confirms our concerns. We have attached documents/ correspondence between MBIE/ MfE, HCC/ Future Proof Partners and their Economic adviser, Market Economics as examples of evidence of your non-compliance with the law on multiple occasions.

Summary.

Over the last three years I have been investigating why housing is so unaffordable in Hamilton and surrounding areas. This investigation has resulted in obtaining critical information under OIA requests.

My motivation is and always has been to improving forecasting accuracy, transparent reporting of findings, and identification of ways to achieve lower housing costs. I do not stand to gain financially in any way.

(1) The reporting supplied by Future Proof do not comply with NPS – UDC or NPS – UD.
(2) Misleading information being provided to Elected Members and other parties.
(3) Incomplete assessment of infrastructure provisioning.
(4) Cost of housing in Hamilton and surrounding districts is extremely high compared with Christchurch.
(5) Lack of reporting transparency leading to high development risk and subsequent cost to purchasers.

The resulting information has provided evidence that critical information has been deliberately withheld from Elected Representatives, MBIE / Mfe and that staff and Future Proof advisors, Market Economics has deliberately misled these parties.

PO Box 22, Hamilton, New Zealand. Telephone: (07) 849 7800 Mobile 021972500
E-mail: colin@cicl.co.nz

Consequently, there are multiple occasions where councils are failing to comply with the National Policy Statement and are therefore in breach of the law. The evidence shows that the staff were aware of this and deliberately sought to conceal the breach to elected representatives.

These matters are complex and detailed, and it is easy to deflect criticism with data, but they have a serious consequence. Hamilton City has approved a budget that is based on incorrect assumptions and critical issues that should have been raised in the long-term plan but ignored.

Background.

Over the last three years, I have provided numerous reports to Future Proof/HCC, with evidence from an economist, Urban Economics, that HCC/ FPP/ME are not complying with their legal requirements. These reports have stated that the methodology that ME is using does not comply with the legislation. Although you have been made aware of these failings HCC / ME are continuing to use the same methodology that the Ministry challenged.

These reports are:

(1) Hamilton Housing Market and Auckland housing prospects 28th August 2018.
(2) The review Hamilton Development Capacity assessment 2019. July 2019.
(3) Overview of Hamilton Development Capacity assessment. 23rd October 2019
(4) Hamilton Construction and Forecasting Development Contribution revenue Hamilton 21st August 2019.
(5) Historical house growth assumptions NPS- UDC 12th November 2018
(6) Hamilton Residential Housing market 24th October 2019
(7) Response by Urban Economics peer review by Market Economics 18th November 2020
(8) Housing Affordability case study Christchurch versus Hamilton 11th Nov 2020.
(9) Evaluation of Restrictive Covenants on Infill capacity Hamilton 24th April 2020
(10) NPS/UDC versus NPS UD, housing supply policy 14th August 2020
(11) Development Contributions National benchmark and impact of Development feasibility 24 April 2021

My complaints are in three parts.

(a) <u>Not complying with and providing misleading information to Productivity Commission, MBIE/ Mfe and Elected Members. This relates to both leading up to, and the preparation of, the National Policy Statement- UDC (2016)</u>

On 4/8/2015, HCC provided a report to the Productivity Commission. They stated: *"HCC has a targeted approach to identify intensification areas in the District Plan and has undertaken infrastructure capacity analysis to support this approach.*

OIA 20107& 19284 16 June 2020 requested HCC provides that document. HCC has advised *"that the document requested does not exist.* "

PO Box 22, Hamilton, New Zealand. Telephone: (07) 849 7800 Mobile 021972500
E-mail: colin@cicl.co.nz

OIA 19085, 18 April 2019,

Is the correspondence between the Ministry (MBIE / Mfe) and Future Proof/ HCC.

Period: March 2018 and Sept 2018.

This correspondence highlights the disagreement between Future Proof and the Ministry regarding Market Economics methodology to comply with NPS - UDC.

The background documents that Future Proof is using for the "methodology" was created by ME. These are useful document, prepared in two stages. The second stage document was a "technical" document regarding methodology.

This technical document failed to take into consideration three key questions required by NPS - UDC. These being:

(1) restrictive covenants
(2) concentrated land ownership
(3) infrastructure Pinch points.

16 July 2018 email from Keith Hornby (*HCC / Future Proof*) to Blair Bowcott and Paul Bowater. (*HCC*)

MBIE advised: "*Future Proof's message to decision-makers depends on three key assumptions: demand growth scenarios, future versus current feasibility and the treatment of anticipated capacity. These assumptions are not fully explained or justified in the report. Future Proof should make decision-makers aware of the risk associated with these assumptions to ensure they can make appropriate decisions.*"

This warning was never passed on to Elected Representatives as per OIA 19175/20146 24th July 2020 (Attached)

Misleading information. In May 2018 Future Proof request that Greenstone Group prepare a report to comply with the NPS-UDC, Housing Building Assessment (HBA). This Greenstone report stated that "if we focus on the underlaying land value of residential development samples and the raw land sales evidence, an average value per lot of $150,000 - $160,000 excl GST was identified for Hamilton. "

This is misleading as the evidence was for apartments, duplex and retirement villages, not stand-alone house sites.

A report by Telfer Young, (registered Valuers 6th August 2020) for same period that Greenstone used (2018), shows land sales of $320,000 to $500,000 not the $150,000 to $160,000 as provided to the Ministry. (attached)

PO Box 22, Hamilton, New Zealand. Telephone: (07) 849 7800 Mobile 021972500
E-mail: colin@cicl.co.nz

(b) <u>The background documents that Future Proof is using to comply with the National Policy Standard UD (2020) also failed to take into consideration</u>

(1) restrictive covenants
(2) concentrated land ownership
(3) infrastructure Pinch points

In July 2021 Future Proof provided online their HBA assessments. In the original document (page 23, which has since been modified/ deleted) it states "it is noted however, that the assessment *was advised not to apply infrastructure constraints within Hamilton.* "

Page 100 (Table 4-11) Hamilton City Enabling Residential Capacity (short term) Commercial feasible and reason expected to be realised shows no infrastructure constraints.

<u>The ME document states that there are no infrastructure constraints when clearly there are.</u>

OIA 20362 20 Jan 2021 states: "*The 2021 Housing Development Capacity Assessment <u>has not</u> taken into account the impact of land covenants "This means that the assumptions the ME are using of infill capacity is incorrect."*

(c) <u>refusing to provide information that would enable us to understand and challenge the methodology that Future Proof/ ME are using.</u>

OIA 21246 26 August 2021. The information requested has been denied. This information is required to understand how Future Proof/ ME have reached their conclusions.

OIA 20362 20 Jan 2021 requested the "Model" that ME were using, to convert growth in households into demand for dwelling by location, type and size to enable a Peer Review. *This was refused as it would infringe on commercial interests.*

OIA 20338/ 21018 7 Dec 2020 relates to the HBA Housing study (choice) Future Proof is refusing to provide the questionnaire to this survey. *The Ombudsman office has formally opened an inquiry into this refusal.*

Conclusion.

We ask that you formally investigate these matters. This complaint will also be provided to Ministers, their advisors, MP and other parties. The results of your investigation will be passed to the Ombudsman office.

I can be contacted for further information. If you would like copies of report prepared by Urban Economics please advise.

Colin Jones
AREINZ.

PO Box 22, Hamilton, New Zealand. Telephone: (07) 849 7800 Mobile 021972500
E-mail: colin@cicl.co.nz

OIA 19085 17th Oct 2019
Correspondence between MBIE and Future Proof Partners.
Covering period, March 2018 to Sept 2018

Below is a summary of information provided by HCC under OIA requests. This OIA totals 212 pages. Many pages were copied multiple times. I have tried to comply in date order, were possible and underlined or colour copied the relevant paragraphs.
In addition to this correspondence, there are relevant matters that the original Future Proof/Market Economics/ HBA assessment has not addressed.

NPS-UDC had a legal requirement to consider Restrictive Covenants, Infrastructure Pinch points, and Concentrated Land Ownership.

None of these were addressed in the (ME) HBA in 2017 or in ME updated, HBA 2021.

This has been confirmed in OIA 20090 Restrictive Covenants, OIA 20107 and 19284 Infrastructure Pinch points, and OIA 20090 Concentrated Land Ownership. Restrictive covenants were also not addressed with OIA 20331.

HCC has refusing to provide information regarding their "growth modelling" and their "housing choices" both of which is required under the HBA legislation.

I have included the latest responses to HCC/ HBA. The modelling that ME undertook in 2017, has not been updated in 2021. *Therefore, no considerations have been taken of Restrictive Covenants, Infrastructure issues or Concentrated land ownership despite this being legally required.*

9 March 2018. Subject. Feedback on your draft HBA policy PB 3.

The NPS-UDC states that the HBA "shall estimate the sufficiency of development capacity.... Including the current feasibility of development capacity. This policy, and the associated definition of NPS- UDC, indicates that commercial feasibility of developing new housing should be assessed based on the pricing costs that are observed today, rather than estimating future prices and costs."

"The recommended assumptions (that sale price will grow more rapidly than building costs) will result in worsening affordability and a significant increase in the house price/ cost ratio over time".

"The NPS-UDC requires that rising prices indicates a need to unlock greater development capacity. This planning response means that past trends cannot be used to predict future prices and costs."

"Under the current feasibility scenario capacity is shown to have a shortfall of about 15,000 dwellings in the short medium term and 58,000 the long-term. This has major implications for appropriate planning response, including the future development strategy."

PO Box 22, Hamilton, New Zealand. Telephone: (07) 849 7800 Mobile 021972500
E-mail: colin@cicl.co.nz

12 March 2018. From Keith Hornby HCC/Future Proof to HCC staff.
Subject Current feasibility further comments from ME.

"Consequently, the only remaining response is to supply additional infrastructure in Greenfield areas to enable additional capacity. Beyond the significant additional costs that this action would impose on Council, would also incentivise the majority of growth at the urban edge, leading to an outcome contrary to Future Proof and the HUGS strategy to achieve 50% infill growth."

12 March 2018. From Greg Akehurst. (ME) to Auckland Council, HCC and others. Subject. Current Feasibility.

"We have had feedback from MBIE/Mfe. Who are clearly opposed to the concept that dwelling feasibility will change over time in the NPS sufficiency assessment? They want the analysis to be restricted to a Normative Economic perspective which focus on a hypothetical future with the market is frozen at the current feasibility."

"This approach is not supported as it does not meet the specific wording of NPS-UDC Policy PB3(c) .
"We note that the ME's recommended assumptions (that sale price will grow more rapidly than building costs) will result in a worsening of affordability and a significant increase in the housing price/cost ratio over time."

28 March 2018. From Greg Akehurst. (ME) to HCC From: Market Economics communicated with Future Proof /HCC advising:

Subject. MBIE Initial Meeting Heads up.

"The short story is that while they *(MBIE / Mfe)* recognise the logic and processes, we have gone through MBIE / Mfe are strongly adhering to the need for complying with the NPS and adhering to the need for compliance with NPS, interpreting the NPS wording very strictly to keep a position of no price increases."

"It is clear from Susan's modelling that at current feasibility, there is only sufficient capacity for 5 to 7 years of growth maybe 10. This, if left as the view from Council, is likely to require a response that would cause Hamilton to rezone a bunch of Greenfield land to provide that additional capacity."

"We want Future Proof to comply with NPS but we also want to provide the most constructive accurate advice to the FPP, so the best possible urban outcome is achieved. A recommendation is that we provide some clear statement around the MBIE/ Mfe 0% price growth scenarios-that is complying with the NPS and is included for that reason only.
It shows a shortage of capacity in the medium and longer term under the MBIE assumptions. However, analysis using a more robust evidence based model presents as scenario of price growth futures-shows a more likely future outcome FPP, and we recommend that Council (in our opinion) rely on these futures in terms of development in response to NPS, as well as for future planning."

"The danger is that if Council simply adopt the MBIE / Mfe 0% price growth future, a) it is wrong and b) it leads to a very high-cost response from Council"

3 April 2018. From Keith Hornby. To HCC Paul Bowman, Ken.
Subject. NPS-UDC suggested next steps.

MBIE/Mfe have raised that they are not clear on some of the technical assumptions used in the ME modelling. This is something which ME would need to document further and may assist with providing them with some confidence/clarity about our adopted approach.

On 3 April 2018, at 12.23pm, Ken Tremaine (advisor to Future Proof,) in an internal email, stated,

Colleagues,
"so, in summary I think there are three options moving forward.

1. *Soldier on and do nothing in addition to the work we have completed already. Ignore our lack of compliance. Think this is a bit of last resort response however."*

2. *Get MBIE back to a dedicated Waikato/ Canterbury on the ground type workshop which highlights all of the distortions the constant price approach produces. We also need to better understand why this model works for Auckland and is completely disastrous for us. I'm in the process of trying to set this up via Alistair Shelton since we need Di there to facilitate this. Following the workshop, agreed one of two approaches. Take an initial price constant approach and then argue a case strongly for why we intend to use the time adjusting modified data. Keith Hornby- you already have all the data to enable us to do this.*

3. *Seek a declaration from the Environment Court as per the excellent Tompkins Wake legal opinion.*

13 April 2018 Keith Hornby to NPS -UD and others .

Subject Future Proof response to draft HBA evaluation feedback.

"The FPP remains firmly of the view that the NPS-UDC does provide flexibility regarding the methodology to be used to assess feasible capacity, particularly as policy PB3 does not preclude methodology approach which anticipates changes in feasibility over time."

"Critically this would also pose significance balance sheet implications for local authorities."

30 April. 2018 NPS -UD to Keith Hornby and others
Subject. Future Proof response to draft HBA evaluation feedback.

Dear Future Proof Partners,

"In terms of specific evidence requests you have made; we will provide you with a summary soon. Would like to reiterate that NPS UDC requires current feasibility to be used as a base scenario and we encourage you to use other scenarios as sensitivity tests."

4 May 2018. From Alistair Shelton to Keith Hornby.
Subject meeting yesterday the next steps.

"we are very aware that this has raised some wider issues around methodology and the NPS approach that are worth exploring further this is a longer term issue and I think we need to set to one side for now."

16 July 2018. From Keith Hornby to Blair Bowcott, Paul Bowater.
Subject. policy signals July 2018.

FPP/ HCC have provided a draft of this report in March 2018, and we provided feedback on a number of points.

"I am largely comfortable with comments on FP HBA in the report with the exception of the comments on page 22 about the usefulness of HBA to decision-makers."

"Even when HBA was well written and key messages clearly reported we assigned at a lower score on the usefulness to decision-makers criteria and is if these messages were not clearly supported by the evidence presented, or if important assumptions were not fully explained or justified in that report. For this reason, we score the Future Proof and Auckland reports low on this criterion."

"Future Proof's message to decision-makers depends on three key assumptions: demand growth scenarios, future versus current feasibility and the treatment of anticipated capacity. These assumptions are not fully explained or justified in the report. Future Proof should make decision-makers aware of the risk associated with these assumptions to ensure they can make appropriate decisions."

30 July 2018. From Alistair Shelton. MBIE to Keith Hornby HCC

Subject final draft of FPP/ HBA summary report.

"We are pleased to see the current market figures have been included alongside the future projections, think that it would be useful to spell out slightly more clearly what each of the scenarios means. In particular the note that future projections are based on a particular set of assumptions which may not eventuate exactly as expected."
"A few further specific points:
P.5. Notes increasing unaffordability, despite a seemingly sufficiency of capacity. This begs the question of why this is happening, if capacity really is sufficient."

Attachments

May 2018. Greenstone Group. Comparative Feasibility Analysis Report.
6 August 2019.Telfer Young(Registered Valuers) Residential Section Prices. Hamilton. 2018
Email correspondence March to Sept 2018.
22 May 2020. OIA 20090. Restrictive Covenants/ Hamilton.
5 June 2020. OIA 20090 Restrictive Covenants/ Hamilton.
16 June 2020. OIA 20107, 19284. (Infrastructure) Pinch points.
26 June 2020. OIA 20090. Restrictive Covenants/ Concentrated ownership
24July 2020. OIA 19175/ 20146. Risks associated with assumptions.
10 Nov 2020. OIA 20031. Restrictive Covenants.
26 Nov 2020. OIA 20327 HCC growth Projections. New dwelling.
20 Jan 2021. OIA 20362. ME Growth Modelling.
26 August 2021. OIA 21246. Updated HBA on Restrictive Covenants.

PO Box 22, Hamilton, New Zealand. Telephone: (07) 849 7800 Mobile 021972500
E-mail: colin@cicl.co.nz

Future Proof
Te Tau Tītoki

27 October 2021

Colin Jones
Director
Commercial and Industrial Consultants

By email

Tēnā koe Colin,

Complaints in relation to compliance with the National Policy Statement on Urban Development Capacity (NPSUDC) and National Policy Statement on Urban Development (NPS UD)

This letter provides a response to your correspondence dated 21 September 2021 and titled "Formal complaint against Future Proof and your councils as Future Proof Partners". This reply is made on behalf of the Future Proof Local Authorities against whom your complaint has been made. This reply has been considered and endorsed by the Chief Executives or senior managers of Hamilton City Council, Waipa District Council, Waikato District Council, and the Waikato Regional Council.

Your letter of 21 September 2021 requests an independent investigation to ensure legislative compliance. It alleges non-compliance in three parts:

a. *Not complying with and providing misleading information to Productivity Commission, MBIE/MfE and Elected Members. This relates to both leading up to and the preparation of, the National Policy Statement – UDC (2016)*

b. *The background documents that Future Proof is using to comply with the National Policy Standard UD (2020) also failed to take into consideration*

    1. *Restrictive covenants*
    2. *Concentrated land ownership*
    3. *Infrastructure pinch points*

c. *Refusing to provide information that would enable us to understand and challenge the methodology that Future Proof /ME are using.*

Your correspondence refers to several historic requests for information to Hamilton City Council on topics including the Future Proof 2017 and 2020 Housing Development Capacity Assessments (HDCA), the 2020 *Future Proof Housing Study: Demand Preferences and Supply Matters* and other questions related to the provision of data or information from reports as far back as 2010. I am advised that your requests on these topics have been ongoing since 2018 and have been addressed through LGOIMA responses by Hamilton City Council.

Having considered your complaints, the material that you provided, and the obligations of the councils under the NPS UDC and subsequently the NPS UD, I make the following responses to each of the three elements of your complaint. In making these responses I note that I would be very happy to meet with you to discuss this further. Staff from Hamilton City Council and other councils as necessary would also be available to discuss this if that would be helpful.

(a) Not complying with and providing misleading information to Productivity Commission, MBIE/MfE and Elected Members. This relates to both leading up to, and the preparation of, the National Policy Statement – UDC (2016)

You have raised concerns regarding the methodology applied to the 2017 HDCA, particularly the methodology applied to determine dwelling feasibility over time.

At the time of the 2017 HDCA there was considerable national debate over the methodology to be applied and the reliability of the results of the assessments done by a number of local authorities in response to the NPS UDC. There was considerable debate about the relevance of a methodology that did not incorporate a scenario that addressed price growth over time. This was ground-breaking work for most of the local authorities involved. It required the collection and analysis of data that was new to the local authorities. There were data inconsistencies, coverage of some data sets was incomplete.

The methodology that was applied by the Future Proof local authorities was thoroughly addressed and settled with the Ministry of Business Innovation and Employment (MBIE) and the Ministry for the Environment (MfE) in 2018. Their report dated July 2018 (MfE/MBIE report), which evaluates the HDCA's of all high growth urban areas (including the Future Proof HBCA), records that the Future Proof HDCA satisfactorily addresses each of the relevant NPS-UDC policies.

As you know the requirements of the NPS UDC were superseded by the NPS-UD, which replaced the NPS-UDC in August 2020.

The NPS UD requirements for the Housing and Business Development Capacity Assessment (HBA) are different from those in the NPS UDC in several important ways. The assessment now enables councils to apply a price growth scenario in the long term. This is consistent with the methodology applied by Future Proof in the 2017 and 2020 analysis.

> *"feasible means*: ...(b) *for the long term, commercially viable to a developer based on the current relationship between costs and revenue, or on any reasonable adjustment to that relationship"* (NPS-UD page 6).

Given the conclusions reached in the MfE/MBIE report, the replacement of the NPS UDC by the NPS UD and the different and new requirements of the NPS UD, I consider that an independent review of the HDCA prepared under the NPS UDC is unlikely to provide any insights that would be helpful in

addressing the future requirements of the NPS UD. That work is now historic and has been superseded.

The Future Proof local authorities completed an HBA under the NPS UD in July 2021. That assessment has been reported to the authorities and presented to MfE as is required by the NPS UD. Considerable effort was devoted to ensuring that the methodology that was used for the 2021 HBA complied with the NPS UD. This included input from MfE and the Ministry of Housing and Urban Development (MHUD) through the process.

MfE has commissioned a review of all the 2020/2021 HDCAs. This review will provide commentary on the robustness and accuracy of the assessments and provide feedback on improvements for future assessments. The results of the review will be made publicly available on the MfE website when the review has been completed.

The Future Proof partnership will draw on the findings of this review, and any other relevant evidence of capacity constraints, the uptake of development capacity, planned infrastructure, house prices, construction costs and commercial feasibility, and any other matters as required by the NPS UD to inform the next iteration of the HBA, which must be completed in time to inform the Future Development Strategy and 2024 Long-Term Plans.

Given the timely nature of the MfE review of all HBAs, and the amount of work that is required to progress the next assessments of development capacity, I don't consider that an additional, separate independent review of the 2021 HBA would be a wise use of resources at this time. If the MfE review identifies shortcomings or failings, then the Future Proof local authorities will work to address them.

(b) The background documents that Future Proof is using to comply with the National Policy Statement UD (2020) also failed to take into consideration

(1) Restrictive covenants

(2) Concentrated land ownership

(3) Infrastructure pinch points

I will address each of these matters separately. In doing so I emphasize that any piece of analysis as complex as that required by the NPS UD is based on a wide range of input information and assumptions. It requires long-term projections of a range of different factors that reflect the complex interactions of people, businesses, systems, and processes. There is considerable uncertainty over many of the matters that contribute to the overall assessment.

The population projections reflect fundamental uncertainty over the rate of growth, the level on net international migration and the levels of outward migration from Auckland. This uncertainty is even more acute in the current environment with border restrictions due to Covid 19, but the knowledge that the current restrictions will not last. Since the requirements of the NPS UDC the Future Proof local authorities have invested considerable effort in developing and improving the evidence base to support this work.

The projections of demand for business land are subject to considerable uncertainty over the future of work, the extent to which people will work from home in the future, the scale of the relocation of businesses out of Auckland, and long-term shifts in nature of the economy of the Waikato.

Equally there are uncertainties over the long-term cost of construction materials and the availability of the skilled labour necessary to build the homes for which we are estimating future demand. The current disruption to global logistics chains, the shortage of wood and other construction materials and the shortage of skilled workers may have far longer impacts that have been assumed to date.

Just as important, the very long-term nature of the HBA requires the assessment of the development potential of greenfields land for which there is, as yet no structure plan and only broad assessments of necessary infrastructure. The assumptions that are made with respect to the potential yield of residential developments 20 to 30 years from now are subject to considerable uncertainty.

In considering the HBA, and this response to your complaint I would encourage you to see the matters you have raised in the context of the whole assessment and the levels of material uncertainty that are involved in the whole process. The three issues that you have raised do need to be addressed, but also need to be seen in context.

Restrictive covenants

Future Proof and Hamilton City Council acknowledge that you raised the matter of restrictive covenants approximately three years ago. We acknowledge that this is an issue that needs to be addressed. Hamilton City Council is currently refining analysis that examines the extent and impact of covenants. We expect this work to be incorporated into the next iteration of the HBA for 2024. We are happy to discuss the findings of this work with you when it has been completed.

It is worth noting that the Government Policy Statement on Housing and Urban Development (GPS-HUD), which is central government's vision and direction for housing and urban development, includes a reference to addressing legal and other barriers that may constrain development such as covenants and cross-leases (page 26). This means that in the future there may be a way to remove or limit the impact of restrictive covenants. The first step is to complete the current work to assess the scale, nature and impact of such covenants.

Having looked at this matter I am confident that Hamilton City Council's current work will address this issue and it will be able to be better reflected in the next HBA undertaken by the Future Proof local authorities.

Concentrated land ownership

While Future Proof and the Hamilton City Council have not undertaken assessments of land ownership concentration, this information was previously available on the MHUD website. It is Hamilton City Council's understanding that Hamilton has a high concentration of land ownership of greenfield growth cells. Both land concentration and fragmented land ownership can pose challenges for the speed of the delivery of new greenfield growth cells.

Through the next phase of Future Proof's work, and through Hamilton City Council's review of the Hamilton Urban Growth Strategy (HUGs) we expect to address impediments to the levels of

development that we anticipate. This will need to include engagement with landowners, the development of structure plans, the design and delivery of necessary infrastructure, the delivery of the necessary transport system and public transport services, and other matters. Through this process the Future Proof local authorities will be engaged in the consideration of the concentration of land ownership, and in the potential to use the authorities that Kāinga Ora now has as an Urban Development Authority.

Again, having looked at this matter I am confident that current work will progress our understanding of this issue and it will be able to be better reflected in the next HBA undertaken by the Future Proof local authorities.

Infrastructure pinch points

As a direct consequence of Policy 3 of the NPS UD, is it highly likely that Hamilton City will be required to add even more plan-enabled capacity than that which is assumed in the 2021 HBA. Work to address these matters is progressing as Hamilton City develops the change to its District Plan that is required by the NPS-UD. In addition to the NPS UD requirements, on 19 October 2021 the Government announced changes to the Resource Management Act that will require changes to District Plans to implement new building intensification rules. These new rules will provide the ability to build up to three stories and up to three houses per site without a resource consent. This requirement will further increase development potential across much of Hamilton. The media release relating to this change makes no reference to infrastructure capacity constraints.

As noted in section 4.1.3 of the 2020 Housing Development Capacity Assessment a step change will be needed in infrastructure to meet the capacity requirements from the NPS-UD intensification. Hamilton City Council is examining the nature and scale of infrastructure required to service intensification. Hamilton City Council, and Waikato and Waipa District Councils are actively engaged in developing Detailed Business Cases for the provision of Metro Wastewater Treatment to both the north and the south of metropolitan Hamilton. Future Proof is in the middle of developing a Programme Business Case for Metro Rapid Transit – a key feature necessary to support the step change in intensification required by the NPS UD. This body of work may well identify further pinch points or limitations that will need to be overcome in order to support the levels of growth that are expected. These will then need to be addressed through the next Long-Term Plans in 2024.

It is not reasonable to believe that the Future Proof local authorities could have fully understood all possible infrastructure pinch points for all possible development scenarios in time to complete the HBA. However, the councils are working hard to identify and overcome network limitations. If it subsequently transpires that the infrastructure limitations are more critical than has been assumed or subsequently identified, then we will need to respond accordingly.

Hamilton City Council's 2021-31 Long-Term Plan has set the budget for infrastructure spending over the next 10 years including for water supply, stormwater and sewerage. There is funding included for resilience, reliability and growth-based projects. You can access the Long-Term Plan here and the information on waters infrastructure spending can be found from page 58.

Hamilton City Council's 2021-2051 Infrastructure Strategy also presents commentary on several challenges and issues regarding the growth of the city. You can access the strategy here. A summary

of these challenges is presented on page 6, with more detail on significant forecasting assumptions from page 90.

Having looked at this matter I am confident that current and planned work will significantly advance our understanding of both infrastructure constraints and the level of investment necessary to address them. This will support the next assessment of development capacity, the review of the Future Development Strategy that is required by the NPS UD, and the next council Infrastructure Strategies and Long-Term Plans.

(c) Refusing to provide information that would enable us to understand and challenge the methodology that Future Proof/ME are using

This complaint relates to the provision of aspects of the proprietary methodology that Market Economics has used in undertaking the HBA. Neither Future Proof nor Hamilton City Council have access to the models and other proprietary information referenced in your correspondence. These were not agreed deliverables to be provided for as part of the 2020 HBA or the 2020 Future Proof Housing Study.

For LGOIMA 20362 and LGOIMA 20338/21018, the information requested has also been determined by Hamilton City Council to be commercially sensitive intellectual property of Market Economics and were therefore could not be released on those grounds.

Both the dwelling demand model requested in LGOIMA 20362, and the questionnaire requested in LGOIMA 20338/21018 were not developed specifically for Hamilton City Council or its Future Proof Partners. They were developed by Market Economics for use in analysis for other organisations and were informed by years of nationwide research. Similarly, the Council understands that Market Economics is a supplier to a range of companies, local governments, and central government departments (refer here), which indicates a high level of confidence in their services within the broader sector.

Having considered this issue I concur with the Hamilton City Council decision that it cannot release information to you that it does not hold, and it cannot release information to you that is deemed to be commercially sensitive and subject to an obligation of confidentiality.

Conclusion

Having considered your complaints, the material that you provided, and the obligations of the councils under the NPS UDC and subsequently the NPS UD, I have reached the view that:

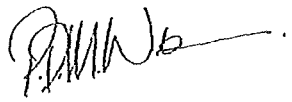
1. Given the conclusions reached in the MfE/MBIE report, the replacement of the NPS UDC by the NPS UD, and the different and new requirements of the NPS UD, an independent review of the HDCA's prepared under the NPS UDC is unlikely to provide any insights that would be helpful in addressing the future requirements of the NPS UD. That work is now historic and has been superseded.

2. A new, independent review of the work undertaken to develop the 2021 HDCA is not warranted at this time. A review is currently being undertaken by MfE and if that raises concerns the Future Proof local authorities will address them.
3. There is substantial work underway to address critical infrastructure issues across the Future Proof area. There is also work underway to address land ownership and restrictive covenants. I am confident that as a result of this, and other work, the next HBA will be a further improvement on the 2021 version.
4. I concur with the Hamilton City Council decision that it cannot release information to you that it does not hold, and it cannot release information to you that is deemed to be commercially sensitive and subject to an obligation of confidentiality.

In closing I reiterate that I would be happy to discuss this with you. I understand the time and effort that you have devoted to examining these issues and the assessments of capacity are important matters of public interest and public policy.

You also have the option of making a complaint to the Ombudsman about the decisions made by the Future Proof local authorities, both in relation to your formal complaint and its decisions on the provision of information under the Local Government Official Information and Meetings Act 1987. Guidance on how to make a complaint can be found here.

Nāku iti noa, nā



Peter Winder
Future Proof Implementation Advisor

Thomas Gibbons Law

Property – Resource Management – Unit Titles

8 June 2022

The Mayor
Hamilton City Council
Hamilton

By email: mayor@hcc.govt.nz

Dear Mayor Southgate

National Policy Statement on Urban Development

1. I am instructed to write on behalf of Mr Colin Jones. As you may be aware, Mr Jones has been investigating growth in Hamilton and the Waikato for a number of years. He has engaged with HCC, FutureProof, and other parties.

2. Mr Jones is particularly concerned with compliance with the National Policy Statement on Urban Development 2020 (NPS-UD), and its predecessor, the National Policy Statement on Urban Development Capacity (NPS-UDC). Put simply, Mr Jones' concerns are that HCC has made insufficient planning for growth, and that this has had a range of impacts on infrastructure availability, housing supply, and housing affordability.

3. Over time, Mr Jones has developed a concern that HCC is not in compliance with its NPS-UD obligations. When this has been raised with HCC, Mr Jones' understanding is that he has been directed to FutureProof, though it is HCC (and not FutureProof) that has obligations under the NPS-UD.

4. Recently, Mr Jones advises that he asserted in an address to Councillors that HCC had not acted in a lawful and compliant manner in relation to the NPS-UD. Mr Jones advises he was challenged on this assertion.

5. Mr Jones has asked me to pass on the attached report from Principal Economics to the Ministry for the Environment in relation to the FutureProof partners. In particular, Mr Jones notes:
   a. The comments on page 16 that the HBA needs to clarify its assumptions.
   b. The comments on page 16 that the HBA does not include an assessment of the impact of Auckland's housing market.
   c. The comments on page 17 that remarks on price signals in the HBA are inconsistent with HBA guidelines.
   d. The comments on page 18, that for HCC, infrastructure capacity has been unable to be measured, and that it is unclear on the types of infrastructure assessed.
   e. The comments on page 18 that sufficiency by housing type has not been reported.

f. The comments on page 19 that the HBA has not provided housing bottom lines as per NPS-UD requirements.
g. The comments on page 20 that the assessment fails to provide capacity by housing type and size.
h. The comments on page 21 that remarks on price signals are contrary to the guidelines in the NPS-UD.
i. The comments on page 22 that various assumptions need to be clarified and justified.
j. The comments on page 22 that the assessment falls short in respect of Māori housing demand.

6. From these comments, it seems clear to Mr Jones that the HBA is incomplete, underdone, and in some respects non-compliant. Mr Jones' view is that this non-compliance means HCC is acting unlawfully.

7. Mr Jones has passionate views on housing affordability and supply, and his key aim is to ensure HCC helps community aspirations be achieved by ensuring its legal obligations are met, including through the NPS-UD. It is hoped that HCC will acknowledge the shortcomings of its approach to the NPS-UD and NPS-UDC to date, and will move to rectify these. Mr Jones is happy to be involved in further discussions towards this end.

Thomas Gibbons
Thomas Gibbons Law Limited
021 675 091
thomasgibbonslaw.co.nz
thomas@gibbonslaw.co.nz

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AUTHORS Adam Thompson
Matthew Williamson
James Stewart

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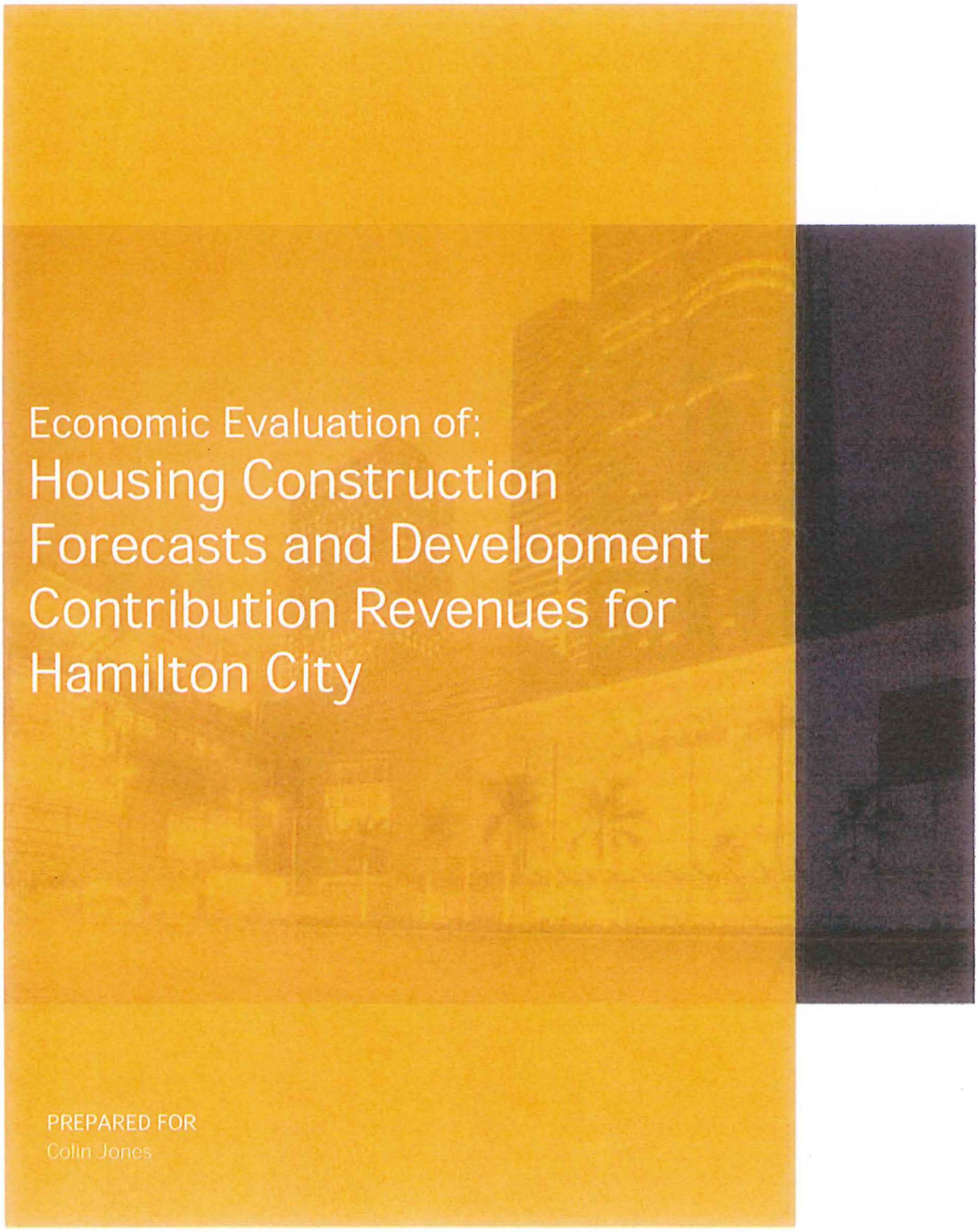


Economic Evaluation of: Housing Construction Forecasts and Development Contribution Revenues for Hamilton City

PREPARED FOR
Colin Jones

ABOUT US

OUR AREAS OF EXPERTISE

Economic Analysis

Our work aims to bridge the gap between land-use planning and urban economics. Our focus is on the interaction between land markets, land-use regulations, and urban development. We have developed a range of methodologies using a quantitative approach to analyse urban spatial structure and audit land-use regulations.

Property Research

We provide property and retail market research to assist with planning and marketing of new projects. This includes identification of new sites and market areas, assessments of market potential and positioning, and the evaluation of market-feasibility of specific projects.

Development Advisory

We provide development planning and costing advisory services to support small and large-scale developments.

P: 09 963 8776

5b Crummer Road, Ponsonby, Auckland

adam@ue.co.nz

www.ue.co.nz

CONTENTS

1. Executive Summary

- Statistics NZ estimates that Hamilton City will growth by 9,100 households over the next decade. Statistics NZ have historically achieved a high level of accuracy with their projections and are therefore considered reliable.
- Hamilton City Council (HCC) has adopted a higher growth projection of 11,950 households over the next decade. This is significantly above both the historical rates and the Statistics NZ projections. It is also worth noting that the HCC growth projections have not accounted for the impact of the rising cost of housing that is expected in the City, which tends to slow growth.
- As part of Hamilton City's obligations under the NPS-UDC, Hamilton City estimated the feasible capacity for growth in Hamilton City. Key to Hamilton City having enough feasible capacity to support future growth expectations was an increase in the real house price from $585,000 - $715,000 over the next ten years. This allows builders to supply housing on parcels and at a density that is not feasible at lower house price levels.
- Market Economics wrote the report underlying Hamilton City's commercially feasible capacity estimates. This report has been peer reviewed by Urban Economics in 2018. Market Economics followed best practice with the modelling techniques used. However, inconsistencies in data source[1] use suggest the modelling is biased in favour of additional commercially feasible capacity.
- The Market Economics report models growth in real house prices. There is no basis for the theoretical proposition that house prices will inevitably double in real terms every 30 years.
- An increase in house prices reduces the attractiveness of the city for existing and potential residents. As a result, a lower quantity of houses is demanded. How much the quantity of housing demanded decreases in response to an increase in price, is the economic concept known as *'price elasticity of demand'*.
- The real house price to income multiple has risen from 6.8 to 9.3 over the past ten years. Over the next ten years it is forecast to grow to 9.8. This is considered extremely unaffordable, and higher than the current multiple in Auckland. High housing unaffordability is the key driver of current relocation out of Auckland. The increase in house prices underpinning Hamilton City Council's current growth forecasts will see Hamilton City become more unaffordable than Auckland is presently.
- Market Economics has projected a slower rate of real house price growth than growth over the most recent period would suggest. As evidenced by the increase in the real

[1] Market Economics used the rating valuation database to derive the purchase price for raw development land, and recent sales prices for the price of new houses that result. This results in developers in their model being able to purchase land for 10 - 20% less than the market value of raw development land. No allowance was made for construction of a driveway, which adds between $10,000 - $30,000 in additional cost per house.

house price to income multiple from 6.8 to 9.3 over the past ten years, and the forecast increase in the real house price to income multiple to 9.8 over the next ten years. If the past ten years is a reliable indicator the house price to income multiple is forecast to increase to 12.1.

- Urban Economics commissioned a survey in 2018 on relocation intentions for Aucklanders. We found that the number one reason driving relocation out of Auckland is high house prices. The largest groups intending to leave are parents with young children. If Hamilton's unaffordability continues to increase, parents with young children may choose to leave.
- Accurately forecasting the growth trajectory of the city is important for estimating rates income and development contributions which are important components of the city budget. Forecasting rates and development contributions accurately enables prediction of the impact of housing costs on the wellbeing of city residents.
- People make trade offs in determining where to live. If Hamilton City experiences an increase in prices more people will choose to locate in commuter towns accelerating urban sprawl.
- After adjusting for price elasticity of demand, total development contributions range from $192 million to $288 million. This results in an infrastructure revenue shortfall of between $25 and $121 million over the next ten years. This is equivalent to between 8 - 39% of all projected development contributions over the next ten years.
- After adjusting for price elasticity of demand due to Hamilton's prices rising from $585 - $715k, the total increase in rates payments attributable to household growth ranges from $156 million to $233 million. This results in a revenue shortfall of between $2 and $78 million over the next ten years. This is equivalent to between 0.1 - 3% of total rates revenue over the next ten years.
- The total revenue shortfall estimated from the reduction in quantity demanded ranges from $27 to $200 million over the next ten years. This is equivalent to 0.65% - 4.85% of total income over the next ten years.
- Hamilton City Council's 10 year plan indicates they expect to operate at their debt ceiling for the 2021 - 2024 period.
- Overestimating revenue could result in Hamilton City Council passing their debt ceiling. This could cause them to lose their AA- credit rating, resulting in higher interest payments for council, and higher rates for ratepayers.

2. Household Growth Projections

Figure 1 outlines three household growth projections for Hamilton. The Actual Growth from 2006-2016 was 7,900 households. This was slightly below Statistics NZ's projections for this period of 9,100 households, which confirms Statistics NZ's forecasts were relatively accurate.

For the 2018-2028 period, Statistics NZ project an additional 9,100 households, slightly (15% or 1,200 households) above the previous decade. HCC project an additional 11,950 households in the documents provided to us under the Official Information Act, and 12,500 under the projections provided to them by the Waikato University National Institute of Demographic and Economic Analysis. The Waikato University series is displayed here for completeness and not analysed in the report. Both these figures are significantly (51 - 58% or 4,050 - 4,600 households) above the previous decade.

Given the historical reliability of the Statistics NZ projections, and the significant increase in household growth expected by HCC, the Statistics NZ projections are preferred.

Figure 1: Household Growth Projections

Household Growth	2006 - 2016	2018 - 2028
Actual Growth	7,900	
Statistics NZ Projections	9,100	9,100
HCC Projections		11,950
Waikato University NIDEA Projections		12,500

Source: Statistcs NZ, Hamilton City

Figure 2 shows the historic Building Consents for new dwellings issued for Hamilton City and the main surrounding cities. It should be noted that only a proportion (80-90%) of building consents result in a new dwelling (and by implication a new household) in the City. They do however provide a good basis for understanding the historical and relative trends between cities.

The main points to note in Figure 2 are:

- All cities have shown a peak in construction around 2004, and dip in construction post 2008 (Global Financial Crisis), and a subsequent increase in construction following 2008.
- Housing construction tends to follow economic cycles and therefore is likely to decrease in all cities over the next 5 years before increasing again. Although hard to predict, typically cycles last 7-10 years.
- Hamilton City had 9,770 dwelling consents, however only 7,900 (81%) of these resulted in new dwellings being built.

A key implication is that the recent increase in the rate of new construction is common to all cities, and this indicates that it is probable that all cities, including Hamilton, will experience a decrease in new dwelling consents over the next 5-10 years, from the current levels seen over the past 1-2 years.

Figure 2: Dwelling Building Consents 2001 - 2018

Year	Hamilton	Auckland	Tauranga	Whangarei
2001	650	8,090	890	480
2002	800	12,150	1,260	520
2003	1,270	11,300	1,420	670
2004	1,450	13,390	1,670	730
2005	1,340	8,780	1,420	710
2006	1,270	8,240	1,250	710
2007	1,400	7,040	1,140	690
2008	680	5,000	840	540
2009	680	4,040	490	480
2010	720	4,130	580	410
2011	740	4,220	640	310
2012	770	5,020	750	370
2013	990	6,760	850	370
2014	840	8,020	1,080	350
2015	1,210	9,330	1,390	420
2016	1,180	10,020	1,700	610
2017	1,140	10,870	1,690	740
2018	1,490	12,860	1,340	600
10-year Total	9,770	75,270	10,500	4,650

Source: Statistics NZ

3. House Price Projections

As part of the Future Proof Partners obligations under the NPS-UDC, Market Economics (consulting to HCC) estimated the feasible capacity for growth in Hamilton City. One of the key elements of their model was real price growth in the median house price from $585,000 in 2018 to $715,000 by 2028[2]. Real price growth is defined as the increase in price over and above the inflation rate. In nominal terms the median house price is projected to rise from $585,000 in 2018 to $868,000 by 2028. Nominal price growth includes the increase in inflation.

This is summarised as follows:

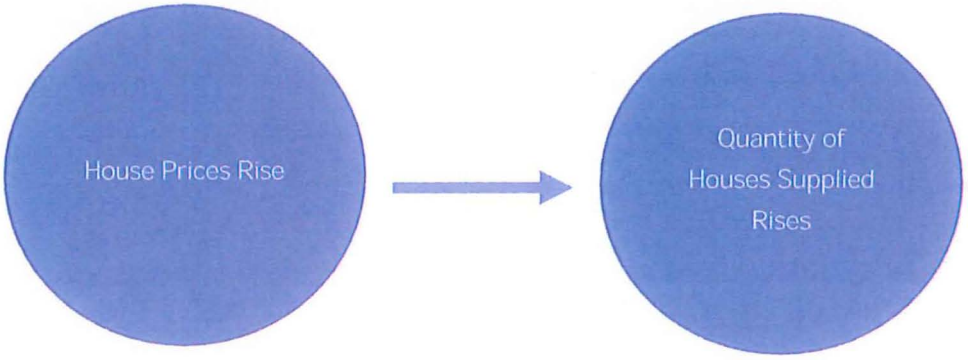
> *"Importantly, the model has a time component which enables it to estimate the commercial feasibility of capacity through time. **Population and other demand growth will affect prices through time,** which affects the feasibility of different developments through time.*
>
> ...
>
> *The annual average rate of **sales price growth has been set [within the CFC Model] at 2.0 per cent per annum** for all dwellings within the Waikato District and Hamilton City.*
>
> ...
>
> ***Growth in prices** (together with growth in costs) have been applied to allow redevelopment, further intensification and outward greenfield expansion to occur through time in the Model."*
>
> *(page 29-30 Technical Specifications Report, emphasis added)*
>
> *It allows for the core economic processes observed and studied to date to continue to have effect, in a*

[2] For the purposes of this report, we adopt the estimates of the supply side made by Market Economics..

*manner generally consistent with the scale and timing of growth in an economy. Accordingly, **there is no requirement to assume** that economic processes evident to date [i.e. house price growth] will no longer occur, or that observed relationships within the economy which affect land markets directly and indirectly will no longer have those effects.*
(page 5, NPS-UDC Current Feasibility Provisions Discussion Paper, emphasis added)

This follows standard economic theory - as dwelling prices increase builders are incentivised to supply more dwellings, and previously unprofitable locations for additional dwellings are now profitable. This is outlined in Figure 3.

Figure 3: Supply Response to Price Increase[3]



4. Infill Development Capacity

Hamilton City Council projects growth of 11,950 additional households by 2028. In order to meet this target, 40% or 4,660 additional dwellings are forecast to be built within the existing urban area. This is known as infill development. The following figure indicates **HCC's estimate of** feasible capacity over time. Feasible capacity increases as the real price of housing rises in the model. A relevant consideration when analysing infill development capacity is the cost of upgrading existing infrastructure. The key points to note are:

- 6,819 dwellings are estimated to be feasible in existing urban areas at current prices.
- By 2021, 13,596 dwellings are feasible in existing urban areas. This translates to a real house price of $621,000 and a nominal house price of $658,000.
- By 2046, 83,505 dwellings are feasible to be built within existing urban areas. This translates to a real house price of $998,000 and a nominal house price of $1,754,000.
- The main implication of this is that Hamilton requires a significant increase in real house prices in order to achieve sufficient commercially feasible infill capacity for growth.
- Market Economics estimates do not consider the obstacles to growth that 'restrictive land

[3] All else being equal

covenants' create[4]. It is unknown how much this reduces feasible capacity; however, the Market Economics commercial capacity estimates are likely to overestimate the commercially feasible capacity in the existing urban area.

- Broadly speaking, upgrading existing infrastructure is 2 - 3 times more expensive than building new infrastructure.
- Greenfield infrastructure placement by contrast, typically involves open fields without existing roads or other infrastructure. This means greenfield infrastructure placement can occur more quickly, cheaply and at a larger scale.
- Hamilton City Council has budgeted $21.3m for water and $103.5m for wastewater in infill areas over the next 10 years in their development contributions policy 2018/19. It is assumed that these estimates are consistent with the requirements of the high level of growth projected in infill areas.
- These costs are estimated to be $10m - $14m and $50m - $67m higher than if the same level of growth occurred in greenfield areas.

Figure 4: Commercially Feasible Infill Capacity

Figure 37 - Infill (Incl. Redevelopment) Commercially Feasible Capacity in Hamilton City

Location	Plan Enabled Capacity Infill (incl. redevelopment)	Commercially Feasible Capacity Infill (incl. redevelopment) 2017	2021	2026	2046
1 (Te Rapa north)	-	-	-	-	-
2 (Te Rapa)	107	-	-	-	106
3 (Rotokauri)	28	-	-	-	-
4 (Nawton)	6,097	189	534	1,191	4,038
5 (Dinsdale)	6,617	193	550	1,285	4,795
6 (Temple View)	534	-	17	50	391
7 (Frankton)	777	64	119	191	496
8 (Melville)	7,332	39	468	1,264	5,475
9 (Peacocke)	904	87	121	150	199
10 (Silverdale)	4,794	206	460	1,322	3,831
11 (East/University)	4,152	370	607	1,114	2,595
12 (Ruakura)	-	-	-	-	-
13 (Fairview/Enderley)	6,023	137	416	902	4,510
14 (East/Claudelands)	4,809	350	446	782	4,063
15 (Chartwell)	5,850	333	1,073	1,796	4,587
16 (Rototuna)	12,463	1,233	3,027	4,216	9,695
17 (St Andrews)	5,712	118	585	1,647	4,695
18 (Beerescourt)	3,944	133	324	640	3,082
19 (Central City)	46,490	3,109	4,411	5,607	28,412
20 (Hamilton Lake)	3,244	331	485	832	2,579
TOTAL	119,841	6,819	13,596	22,942	83,505

Source: Market Economics

[4] The majority of Hamilton City's growth over the past half century has occurred through large masterplanned developments. Most of these developments place restrictive covenants on new sections limiting dwellings per section and size of dwellings.

5. Price Elasticity of Demand for Housing

As outlined in Section 3, as dwelling prices increase builders are incentivised to supply more dwellings, and previously unprofitable locations for additional dwellings are now profitable. However, markets cannot be understood in terms of supply alone. As prices rise, unless they have done so in response to an increase in demand, quantity demanded falls. The quantity that demand falls by in response to an increase in price **is an economic concept called the 'price elasticity of demand'.**

Applications of the price elasticity of demand can be seen in several current government health policies. Government taxes on cigarettes and alcohol are designed to reduce consumption through raising prices. A study of the effectiveness of tobacco excise taxes[5] was completed by EY for the ministry of health in 2018. They found the mean price elasticity of demand for the population of New Zealand was -0.5, a 100% increase in price reduces demand by 50%. A similar study into the effectiveness of alcohol taxes on reducing consumption was completed by the Ministry of Justice[6] finding elasticity coefficients between -0.44 to -0.54, a 100% increase in the price of alcohol reduces consumption by between 44 and 54%.

Academic literature on this concept as applied to housing has found coefficients between -0.36 and -0.87, a 100% increase in the price of housing results in 36 - 87% less housing demanded. A review of academic literature on this concept as applied to housing is provided below.

What is the price elasticity of housing demand?, Eric A. Hanushek and John M. Quigley (1980)

This paper estimated the response of renters in Phoenix and Pittsburgh who were randomly given rental payment subsidies between 20% and 60% and a control group who were given no subsidy. Data on housing choices was recorded at the start of the period and annually for the next two years. The estimated price elasticity of demand for the Pittsburgh group was -0.64 and -0.45 for the Phoenix group.

Housing Demand and Expenditures: How Rising Rent Levels affect Behavior and Costs-of-Living over Space and Time, David Albouy, Gabriel Ehrlich and Yingyi Liu (2014)

This paper analysed changes in incomes, non-housing costs and housing costs across multiple metropolitan centres in the United States from 1982 - 2012. Controlling for non-housing costs controls for how changes in non-housing costs relate to changes in housing costs. Controlling for incomes controls for how increases in incomes result in increases in the amount of housing demanded. A significant number of specifications were analysed resulting in price elasticity of demand coefficients between -0.38 and -0.87.

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[5] Evaluation of the tobacco excise increases as a contributor to Smokefree 2025 - Final Report, EY (2018)

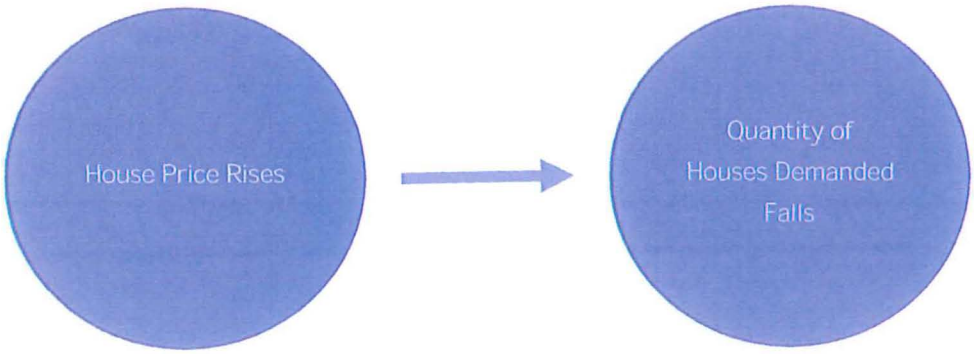
[6] The Effectiveness of Alcohol Pricing Policies, Ministry of Justice (2014)

Wage gradients, rent gradients, and the price elasticity of demand for housing: An empirical investigation, Randall W. Eberts, Timothy J. Gronbery

Data from Chicago on the slope of changes in wages and rents was analysed to determine the price elasticity of demand. As changes in wages change how much housing people demand, controlling for this affect allows the authors to analyse how much changes in rent change the amount of housing demanded. Their results found a price-elasticity of demand estimate of -0.4.

Concluding remarks: When house prices rise, all else being equal simultaneously quantity supplied rises and quantity demanded falls. It is likely that the price elasticity of demand coefficient is between -0.36 to -0.87 in New Zealand. This can be interpreted as a 100% increase in the price of housing results in 36 - 87% less housing being demanded. This suggests price elasticity of demand is inelastic.

Figure 5: Demand Response to Price Increase



As general context to the concept of price elasticity of demand for housing, Urban Economics commissioned a relocation survey last year in Auckland where the cost of housing was the number one reason for relocation. The results can be found in Appendix 1. The main finding was that households consider leaving cities as the price of housing increases.

6. Changes in Housing Affordability

Housing affordability has decreased significantly in Hamilton over the past ten years as house price growth has increased at a faster rate than wages. As outlined elsewhere, housing affordability is a key driver of growth, with worsening housing affordability reducing demand for housing.

Housing affordability is measured using the multiple of the median house price to the median household income. This provides a good measure of housing affordability for the average household.

$$House\ Price\ to\ Income\ Multiple = \frac{Median\ House\ Price}{Median\ Household\ Income}$$

Internationally, House Price to Income Multiples are widely accepted as a measure of housing affordability. The World Bank views this multiple as:

> *"possibly the most important summary measure of housing market performance, indicating not only the degree to which housing is affordable by the population, but also the presence of market distortions".*

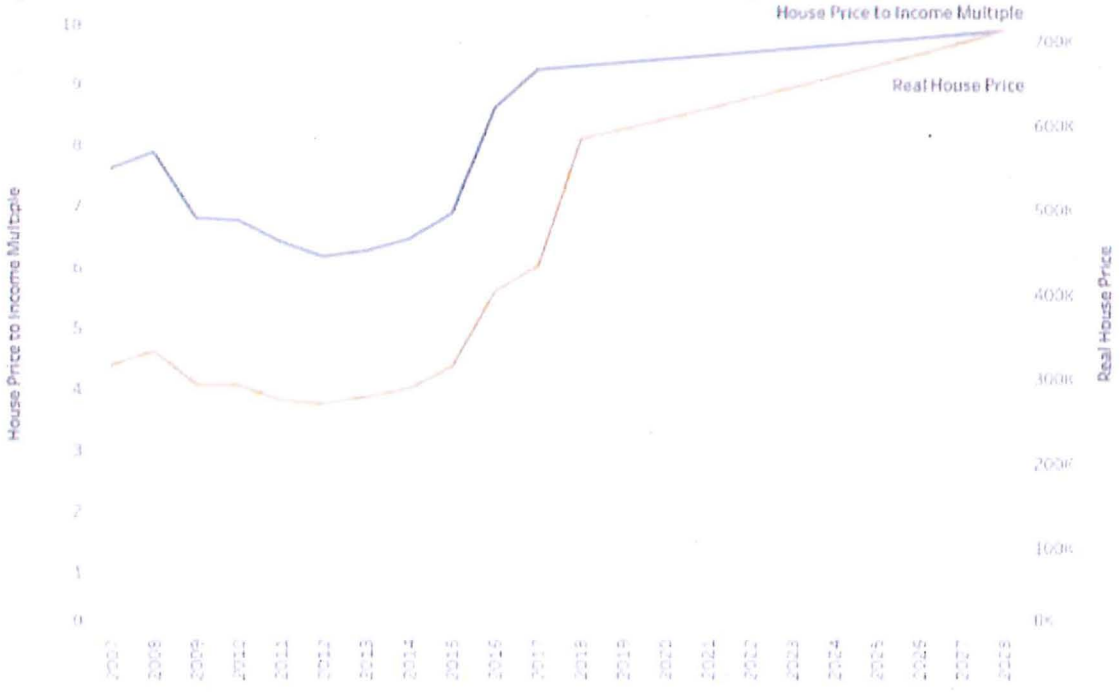
Analysis of this multiple primarily from evidence in the United States has resulted in international acceptance that a median multiple of 3 or less is a very good marker for housing affordability. New Zealand experienced median multiples of 2 - 3 from 1957 - 1980 by the late 1990s the median multiple had risen to 4. Currently New Zealand's median multiple sits at 6.5. Hamilton City's House Price to Income multiple historically and forecast is displayed in the following figures. The key points to note are:

- The house price to income multiple has risen from 6.8 to 9.3 over the past ten years. Over the next ten years it is forecast to grow to 9.8. This translates to an increase in the median real house price from $585,000[7] currently to $715,000. This is considered extremely unaffordable, and higher than the current multiple in Auckland.
- The house price to income multiple has risen from 6.8 to 9.3 over the past ten years. If house prices increase at the same rate during the next ten years it is forecast to grow to 12.1. This translates to an increase in the median real house price from $585,000 currently to $830,000. This is considered extremely unaffordable and significantly higher than the current multiple in Auckland.
- The current average household income in Hamilton is estimated at $62,900[8]. This means a house considered affordable by international standards would sell for no more than $188,700.
- The median real house price growth to $715,000 is expected to be accompanied by real wage growth to $72,960. Real wages growing slower than house prices is key to the assumption that commercially feasible capacity will increase over time.
- High housing unaffordability is the key driver of current relocation out of Auckland. The increase in house prices underpinning Hamilton City Council's current growth forecasts will see Hamilton City become more unaffordable than Auckland is presently. This is likely to result in less people choosing to live in Hamilton, and more existing residents considering relocation elsewhere
- The Ministry of Social Development (MSD) uses outgoings-to-income ratios to analyse affordability of housing. High housing costs relative to income are often associated with severe financial difficulty. Spending more than 30% of disposable household income on housing is considered high.

[7] QV.co.nz
[8] Statistics NZ, Infometrics

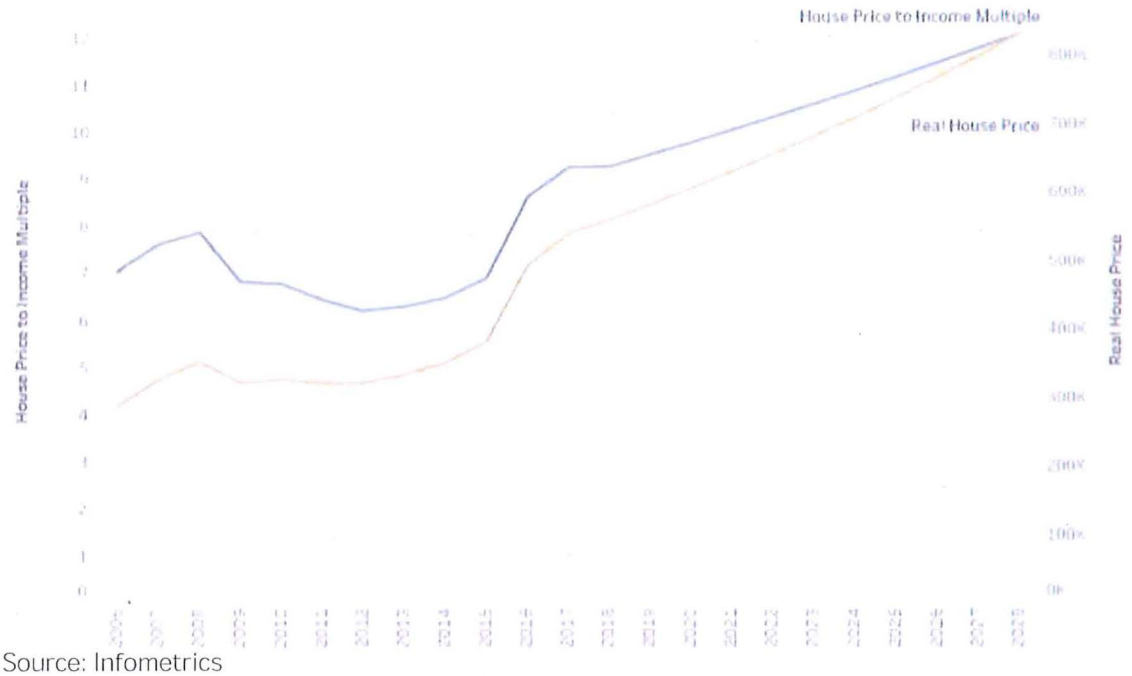
- The survey **MSD's outgoings**-to-income ratio is based on is only applicable at the national level due to sample size, however the rate of real house price growth modelled by Market Economics is higher than the historical rate of real wage growth in Hamilton City.
- If real house prices increase at this rate, the proportion of households in Hamilton experiencing severe financial difficulty is likely to increase.
- Current interest rates are at all time historic lows, allowing many households to service much larger home loans.
- Although it is difficult to predict interest rate movements over the next 5 - 10 year period, it is considered unlikely they will continue to stay at the current level.
- Increases in interest rates increase the financial burden of housing on households with high levels of debt.
- Increases in interest rates generally result in a fall in asset prices. This is because purchasing assets with debt becomes more costly, for a household purchasing a home this translates to a higher weekly or monthly mortgage payment.
- Increases in interest rates make the required real house price growth to meet Hamilton **City's infill development goals outlined in** Section 4 less attainable.

Figure 6: Real Median House Price and House Price to Income Multiple, ME Projections



Source: Infometrics

Figure 7: Real Median House Price and House Price to Income Multiple, Recent Trend Projections



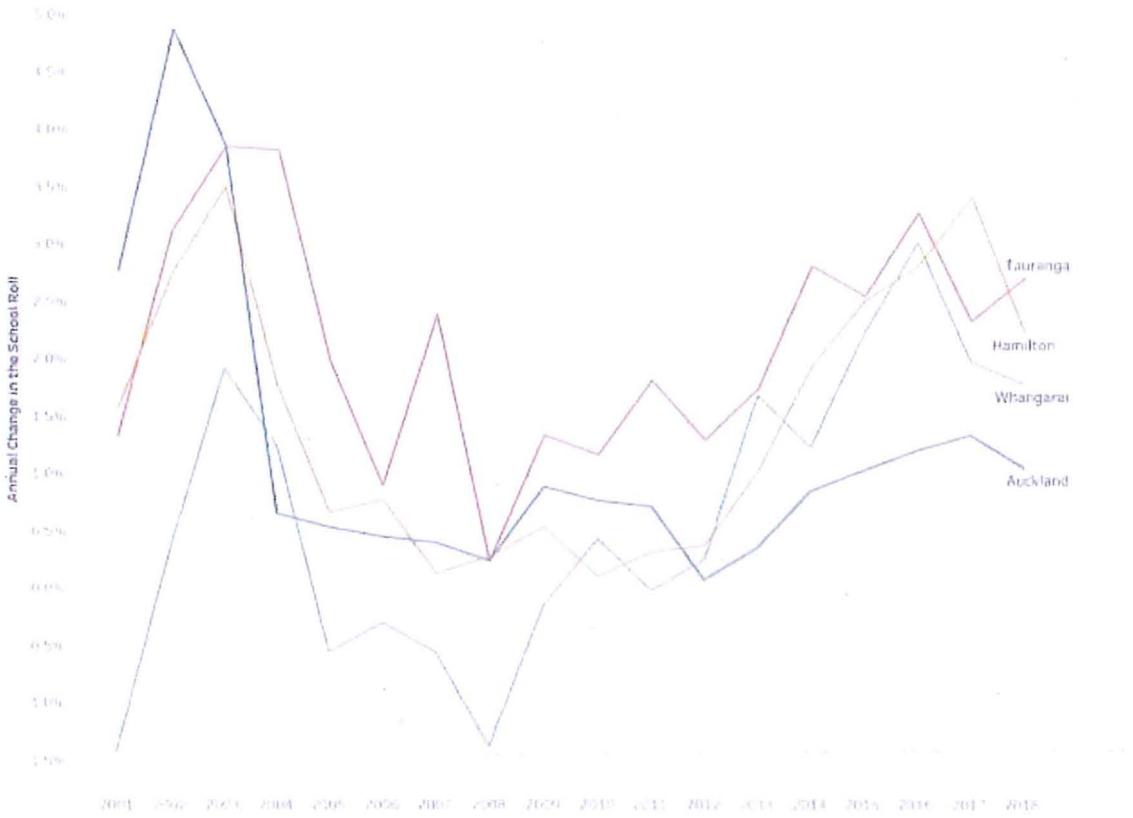
Source: Infometrics

7. School Roll Growth

Growth in the number of children enrolled in schools is a useful indicator for where young families are choosing to settle. Young families tend to be highly mobile and relatively sensitive to increases in housing affordability. More information on this can be found in Appendix 1. The following figure graphs the annual percentage change in the total school roll for Auckland, Hamilton, Tauranga and Whangarei over the past 19 years. The key points to note are:

- During the past 6 years all cities have experienced a larger percentage growth in school rolls than Auckland. This indicates families are moving from Auckland due to high house prices
- As indicated by our survey found in Appendix 1, the number one reason driving relocation out of Auckland is high house prices. The largest groups intending to leave are parents with young families.
- If Hamilton's unaffordability continues to increase, parents with young children are more likely to choose to leave.

Figure 8: Percentage Change in Total School Roll Over Time



Source: Statistics NZ

8. Competing Housing Supply

Where people choose to locate is a series of trade-offs between different variables. Proximity to good jobs, schools, friends, family and amenities are all desirable. People also generally prefer to have a larger section size and house. All of these variables are also weighed up in terms of price. A classic example can be seen with the appeal of suburban fringe properties and commuter towns. People are willing to commute a bit further if they are able to purchase a larger section for the same or lower price. Hamilton City is surrounded by small towns in the adjacent Waikato and Waipa Districts which have experienced a construction boom in recent years. The key points to note are:

- If HCC increases development contributions at a faster rate than the Waipa and Waikato districts the relative attractiveness of commuter towns increases.
- Standard economic theory suggests that more people would then choose to commute into Hamilton for work rather than locate in Hamilton itself, as the benefits of locating further out have increased, while the downsides haven't changed[9].

[9] If a lot of people do this, we would expect larger traffic flow issues as a result as well as the price of

URBAN ECONOMICS

7 April 2021

To Colin Jones

RE: Development Contribution National Benchmarking & Impact on Development Feasibility in Hamilton City

This following benchmarks Hamilton City's development contributions against other local authorities in New Zealand.

Development Contributions are sourced from local authority annual plans for the year ended December 2020 by district. Average development contributions are determined as total development contributions divided by building consents for new dwellings for the year ended December 2020.

The key points to note are:

- Hamilton City has the 5th highest average development contribution of all local authorities.
- In faster growing cities (above 1,000 dwellings per annum) Hamilton City has the highest average development contribution.
- Hamilton City has an average development contribution that is 2.1 times the national average.

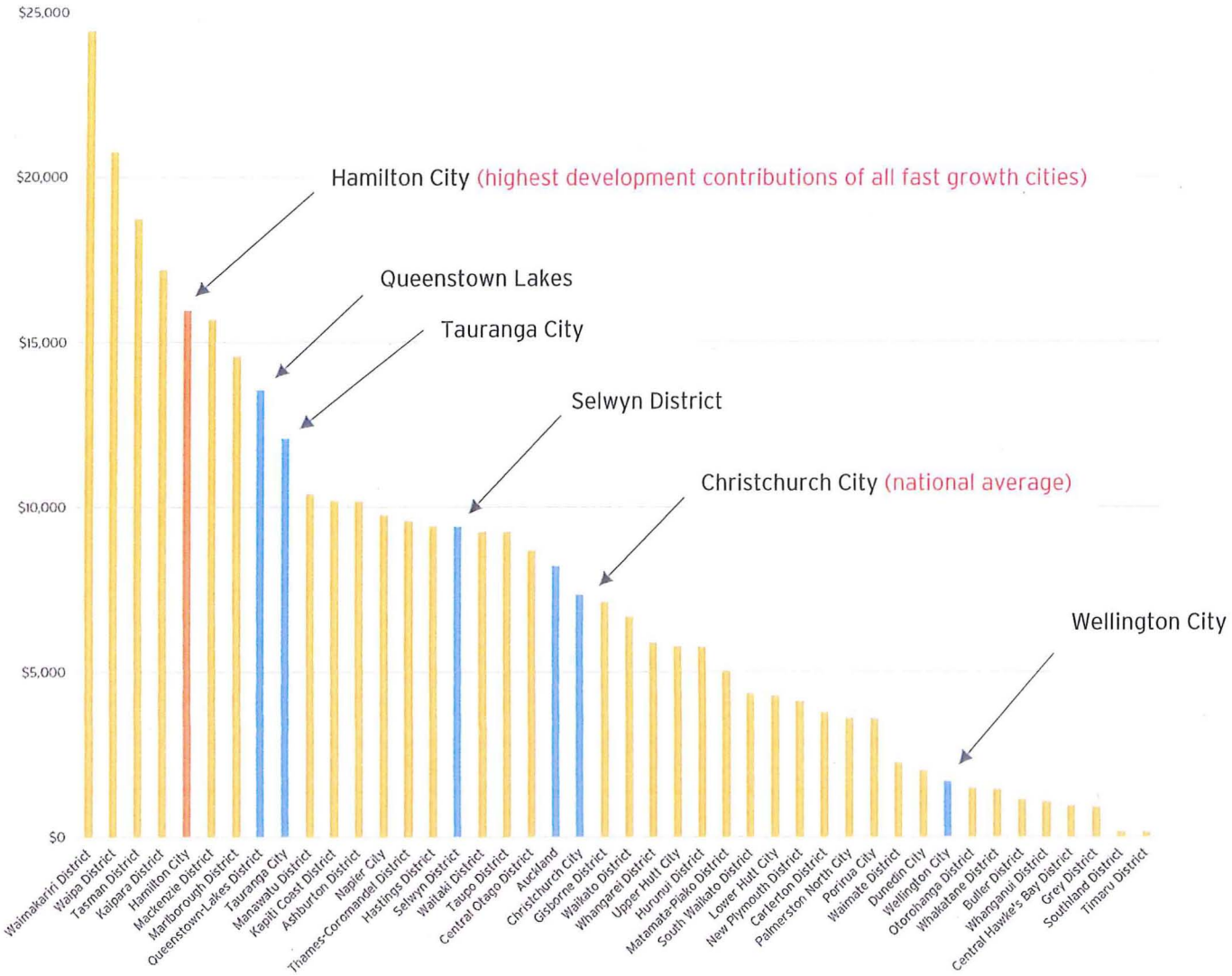
This benchmarking suggests that Hamilton City has development contributions that are notably higher than its comparable cities.

Figure 1: Development Contribution Benchmarking by Local Authority

District	Total Devloper Contributions, Annual Plan	Building Consents, Year Ending Dec 2020	Average Development Contribution per Building Consent	Multiple of Average Development Contribution per Building Consent
Waimakariri District	$13.5 M	551	$24,450	3.2
Waipa District	$12.1 M	581	$20,780	2.7
Tasman District	$10.3 M	550	$18,750	2.4
Kaipara District	$3.4 M	198	$17,200	2.2
Hamilton City	$22.5 M	1,410	$15,960	2.1
Mackenzie District	$1.5 M	96	$15,700	2.0
Marlborough District	$3.6 M	245	$14,580	1.9
Queenstown-Lakes District	$15.3 M	1,130	$13,540	1.8
Tauranga City	$17.7 M	1,462	$12,080	1.6
Manawatu District	$1.8 M	174	$10,390	1.4
Kapiti Coast District	$2.1 M	208	$10,210	1.3
Ashburton District	$1.5 M	146	$10,190	1.3
Napier City	$3.4 M	347	$9,770	1.3
Thames-Coromandel District	$2.7 M	284	$9,600	1.2
Hastings District	$5.4 M	573	$9,440	1.2
Selwyn District	$16.2 M	1,726	$9,400	1.2
Waitaki District	$1. M	103	$9,260	1.2
Taupo District	$2.8 M	301	$9,250	1.2
Central Otago District	$2.3 M	270	$8,690	1.1
Auckland	$136.7 M	16,656	$8,210	1.1
Christchurch City	$21.9 M	2,982	$7,340	1.0
Gisborne District	$.7 M	98	$7,130	0.9
Waikato District	$6.4 M	959	$6,670	0.9
Whangarei District	$3. M	507	$5,900	0.8
Upper Hutt City	$1.5 M	262	$5,790	0.8
Hurunui District	$.6 M	109	$5,770	0.8
Matamata-Piako District	$1.4 M	282	$5,050	0.7
South Waikato District	$.2 M	56	$4,360	0.6
Lower Hutt City	$2.8 M	653	$4,290	0.6
New Plymouth District	$2.4 M	571	$4,130	0.5
Carterton District	$.4 M	108	$3,790	0.5
Palmerston North City	$1.9 M	524	$3,610	0.5
Porirua City	$1.3 M	369	$3,600	0.5
Waimate District	$.1 M	28	$2,250	0.3
Dunedin City	$.8 M	412	$2,020	0.3
Wellington City	$2. M	1,194	$1,680	0.2
Otorohanga District	$.1 M	40	$1,500	0.2
Whakatane District	$.1 M	88	$1,440	0.2
Buller District	$.1 M	45	$1,160	0.2
Whanganui District	$.2 M	175	$1,080	0.1
Central Hawke's Bay District	$.1 M	111	$960	0.1
Grey District	$.03 M	33	$910	0.1
Southland District	$.02 M	139	$170	0.0
Timaru District	$.03 M	200	$150	0.0
Average	$7.4 M	840	$7,690	1.0

Source: Urban Economics

Figure 2: Development Contribution Benchmarking by Local Authority



The following assesses the impact of the proposed increase in development contributions on the commercial feasibility of greenfield housing development. This is a requirement of the NPS-UD which requires sufficient feasible capacity to meet demand, for a range of house types and prices, and the RMA, which requires sufficient feasible capacity to meet the needs of the population over the short, medium and long term.

A particular concern that arises is the impact of a potential down-turn in the housing market, with lower house prices reducing the profit margin for developers, and potentially resulting in new housing construction becoming uneconomic if the greenfield development contributions are set at an unusually high level. This is assessed in the bottom table.

The following figure assesses the impact of a range of development contributions on the price of lots and dwellings on the value of greenfield development land in Hamilton, for a range of development contributions values ($30,000 - $100,000).

Development contributions are shown in the top row. All other costs and revenues are shown for a $800,000 dwelling (figure 3) and a $700,000 dwelling (figure 4). This enables dwellings of circa 170sqm, including three bedrooms and a double garage.

The residual land value is the amount the developer can pay for raw greenfield development land, after all costs and revenues are accounted for.

The current price of raw greenfield development land is around $500,000 per hectare. If the residual land value equals or exceeds this amount the development is commercially viable.

Under the $800,000 dwelling scenario, which results in a lot value of $360,000, the developer can pay up to $50,000 per development contribution to achieve a commercially feasible development.

If the housing market experiences a downturn over the next few years, which may occur given the current international situation, with house prices decreasing to $700,000 (as shown in the bottom table), and lots decreasing to $315,000, this would reduce the residual value of land, and the developer can only pay up to $30,000 per development contribution to achieve a commercially feasible development.

Under both scenarios the proposed increase in development contributions, to $60,000 - $90,000 in greenfield locations, would render greenfield development commercially infeasible. This would not meet the requirements of the NPS-UD or RMA which require sufficient feasible capacity to meet the needs of the community, across a range of dwelling types, prices and locations.

More generally, the proposed high development contributions would preclude the construction of affordable housing, as the required sale price of a dwellings would be $675,000 if development contributions are set at $60,000 and $815,000 if development contributions are set at $90,000.

It is also worth noting that while development of $800,000 housing may be feasible for development contributions of up to $50,000, it is not necessarily affordable. As demonstrated by figures 3 and 4, the more affordable the dwelling, the lower the maximum development contribution payable. Enabling affordable 3 bedroom family housing should be a primary aim as 65 – 70% of

housing demand tends to be meeting the needs of families and most families need 3 bedrooms plus.

If greenfield land is not available at competitive prices in Hamilton, then demand will shift to the surrounding towns, as family buyers seeking their first home will prefer to travel further in order to become owners. For this reason, further research is required into the availability and price of greenfield development land in Hamilton and the surrounding towns.

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Figure 3: Development Feasibility Assessment for $800,000 Greenfield Dwelling

Development Contribution		%	$30,000	$40,000	$50,000	$60,000	$70,000	$80,000	$90,000	$100,000
Housing Scenario	Average Lot Size (m^2)		450	450	450	450	450	450	450	450
	Dwelling Size (m^2)		170	170	170	170	170	170	170	170
	Dwelling Value		$800,000	$800,000	$800,000	$800,000	$800,000	$800,000	$800,000	$800,000
Block Information	Land Area (m^2)		10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
	Less Stormwater Area		1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
	Less Roads, Footpaths		2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
	Effective Area		6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500
Gross Realisation	Number of Sites		14	14	14	14	14	14	14	14
	Average Section Price (incl. GST)		$360,000	$360,000	$360,000	$360,000	$360,000	$360,000	$360,000	$360,000
	Total Lot Revenue		$5,200,000	$5,200,000	$5,200,000	$5,200,000	$5,200,000	$5,200,000	$5,200,000	$5,200,000
	Agents Commission %		2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
	Agents Commission		$130,000	$130,000	$130,000	$130,000	$130,000	$130,000	$130,000	$130,000
	Legal Fees (per site)		$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
			$14,000	$14,000	$14,000	$14,000	$14,000	$14,000	$14,000	$14,000
	Gross Realisation		$5,056,000	$5,056,000	$5,056,000	$5,056,000	$5,056,000	$5,056,000	$5,056,000	$5,056,000
Net Realisation	Less GST	15%	$758,000	$758,000	$758,000	$758,000	$758,000	$758,000	$758,000	$758,000
	Net Realisation		$4,298,000	$4,298,000	$4,298,000	$4,298,000	$4,298,000	$4,298,000	$4,298,000	$4,298,000
Less Costs	**Direct Costs**									
	Development Contributions		$433,000	$578,000	$722,000	$867,000	$1,011,000	$1,156,000	$1,300,000	$1,444,000
	Professional & Council Fees	10%	$116,000	$116,000	$116,000	$116,000	$116,000	$116,000	$116,000	$116,000
	Other	5%	$58,000	$58,000	$58,000	$58,000	$58,000	$58,000	$58,000	$58,000
	Civil Works		$980,000	$980,000	$980,000	$980,000	$980,000	$980,000	$980,000	$980,000
	Civil Works Contingency at	10%	$98,000	$98,000	$98,000	$98,000	$98,000	$98,000	$98,000	$98,000
	Total Costs		$1,685,000	$1,830,000	$1,974,000	$2,119,000	$2,263,000	$2,408,000	$2,552,000	$2,696,000
	Holding Costs									
	Interest	7%	$236,000	$256,000	$276,000	$297,000	$317,000	$337,000	$357,000	$377,000
	Rates and Insurance		$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000
	Total		$246,000	$266,000	$286,000	$307,000	$327,000	$347,000	$367,000	$387,000
	Profit & Risk	25%	$1,433,000	$1,433,000	$1,433,000	$1,433,000	$1,433,000	$1,433,000	$1,433,000	$1,433,000
	Total Costs		$3,364,000	$3,529,000	$3,693,000	$3,859,000	$4,023,000	$4,188,000	$4,352,000	$4,516,000
Residual Land Value	$/hectare		$934,000	$769,000	$605,000	$439,000	$275,000	$110,000	-$54,000	-$218,000
Development Land Value	$/hectare		$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000
Feasibile			Yes	Yes	Yes	No	No	No	No	No

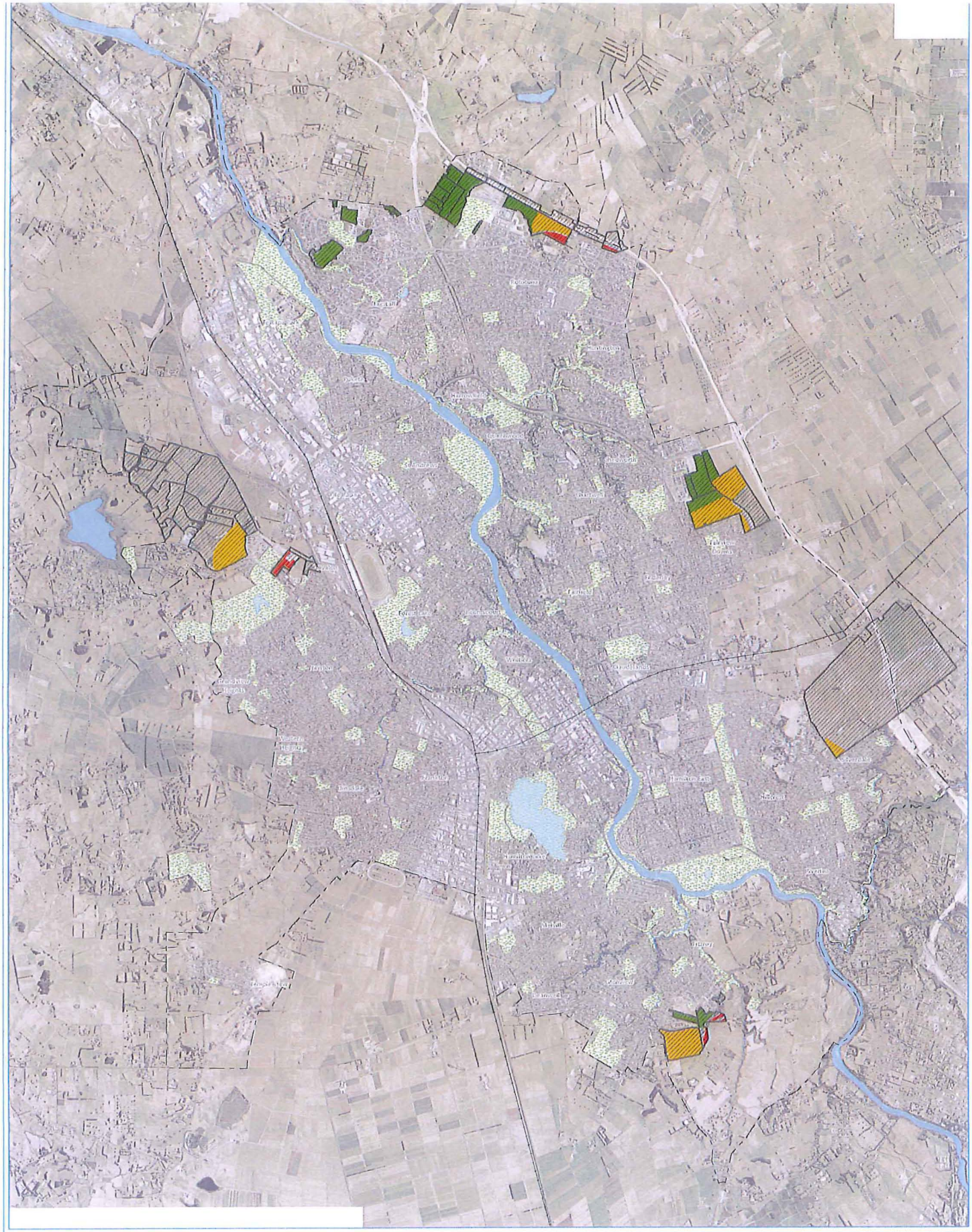
Source: Urban Economics

URBAN ECONOMICS

Figure 4: Development Feasibility Assessment for $700,000 Greenfield Dwelling

Development Contribution		%	$30,000	$40,000	$50,000	$60,000	$70,000	$80,000	$90,000	$100,000
Housing Scenario	Average Lot Size (m^2)		450	450	450	450	450	450	450	450
	Dwelling Size (m^2)		170	170	170	170	170	170	170	170
	Dwelling Value		$700,000	$700,000	$700,000	$700,000	$700,000	$700,000	$700,000	$700,000
Block Information	Land Area (m^2)		10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
	Less Stormwater Area		1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
	Less Roads, Footpaths		2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
	Effective Area		6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500
Gross Realisation	Number of Sites		14	14	14	14	14	14	14	14
	Average Section Price (incl. GST)		$315,000	$315,000	$315,000	$315,000	$315,000	$315,000	$315,000	$315,000
	Total Lot Revenue		$4,550,000	$4,550,000	$4,550,000	$4,550,000	$4,550,000	$4,550,000	$4,550,000	$4,550,000
	Agents Commission %		2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
	Agents Commission		$114,000	$114,000	$114,000	$114,000	$114,000	$114,000	$114,000	$114,000
	Legal Fees (per site)		$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
			$14,000	$14,000	$14,000	$14,000	$14,000	$14,000	$14,000	$14,000
	Gross Realisation		$4,422,000	$4,422,000	$4,422,000	$4,422,000	$4,422,000	$4,422,000	$4,422,000	$4,422,000
Net Realisation	Gross Realisation les GST	15%	$663,000	$663,000	$663,000	$663,000	$663,000	$663,000	$663,000	$663,000
	Net Realisation		$3,759,000	$3,759,000	$3,759,000	$3,759,000	$3,759,000	$3,759,000	$3,759,000	$3,759,000
Less Costs	**Direct Costs**									
	Development Contributions		$433,000	$578,000	$722,000	$867,000	$1,011,000	$1,156,000	$1,300,000	$1,444,000
	Professional & Council Fees	10%	$116,000	$116,000	$116,000	$116,000	$116,000	$116,000	$116,000	$116,000
	Other	5%	$58,000	$58,000	$58,000	$58,000	$58,000	$58,000	$58,000	$58,000
	Civil Works		$980,000	$980,000	$980,000	$980,000	$980,000	$980,000	$980,000	$980,000
	Civil Works Contingency at	10%	$98,000	$98,000	$98,000	$98,000	$98,000	$98,000	$98,000	$98,000
	Total Costs		$1,685,000	$1,830,000	$1,974,000	$2,119,000	$2,263,000	$2,408,000	$2,552,000	$2,696,000
	Holding Costs									
	Interest	7%	$236,000	$256,000	$276,000	$297,000	$317,000	$337,000	$357,000	$377,000
	Rates and Insurance		$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000
	Total		$246,000	$266,000	$286,000	$307,000	$327,000	$347,000	$367,000	$387,000
	Profit & Risk	25%	$1,253,000	$1,253,000	$1,253,000	$1,253,000	$1,253,000	$1,253,000	$1,253,000	$1,253,000
	Total Costs		$3,184,000	$3,349,000	$3,513,000	$3,679,000	$3,843,000	$4,008,000	$4,172,000	$4,336,000
Residual Land Value	$/hectare		$575,000	$410,000	$246,000	$80,000	-$84,000	-$249,000	-$413,000	-$577,000
Development Land Value	$/hectare		$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000
Feasibile			Yes	No	No	No	No	No	No	No

Source: Urban Economics



Legend

- LGOIMA 20043 parcels
- Rail
- City boundary
- Existing reserves
- Waterways

Developer Ready

- Developer Ready Residential Land Now
- Developer Ready Residential Land Years 1 to 3
- Developer Ready Residential Land Years 4 to 10

N

version 1

Hamilton City Council
Te kaunihera o Kirikiriroa

GIS & CAD Services

Developer Ready and LTP 1-10 Years Land Availability August 2019

Date: 25/03/2020